The Education Digest

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Volume XXVII December 1961 Number 4

The Education Digest

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EDUCATIONAL PRESS ASSOCIATION OF AMERICA

Editorial and Circulation Office: 416 Longshore Drive, Ann Arbor, Michigan.

Advertising Sales Offices:
- Ann Arbor, Mich.—416 Longshore Drive, telephone NO 8-7205.
- Chicago, Ill.—Didier & Broderick, Inc., 5809 Lincoln Ave., telephone LO 1-5284.
- New York 17, N.Y.—Macintyre-Simpson & Woods, 101 Park Ave., telephone LE 2-0020.
- Los Angeles 5, Calif.—The Jess M. Laughlin Company, 711 S. Vermont Ave., telephone DU 3-7697.

Published monthly, September through May, by Prakken Publications, Inc., 416 Longshore Drive, Ann Arbor, Michigan. The annual index is included in the May issue. The contents of THE EDUCATION DIGEST are listed in the **Education Index**.

Subscription Rates: $5.00 a year; 2 years, $9.00; 3 years, $12.00; foreign, $5.50 a year. Single copies, 60c.

Second-class mail privileges authorized at Ann Arbor, Michigan, and additional entry authorized at Oxford, Ind. Printed in the United States of America.

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THE EDUCATION DIGEST

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olume XXVII DECEMBER 1961 Number 4

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Why the High School Must Be Revived

Live Students and Dead Education

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OSCAR HANDLIN

In The Atlantic

Oscar Handlin is Professor of History, Harvard University, Cambridge, Massachusetts. He was awarded the Pulitzer Prize in History for The Uprooted *in 1952. Reported from* The Atlantic, *CCVIII (September 1961)*, 29–34.

IT is high time to reconsider the function of secondary education if we wish to spare our children the chaos that now threatens them in the most vulnerable years of their lives.

The evidence is clear. The number of high-school students is larger than ever before, and it will continue to increase for years to come. n this group are boys and girls of types that did not formerly ascend to this level of instruction; it will be dangerous to neglect their needs and interests. Above all, the high schools now operate in a new social context, of which they must take account. These developments pose a challenge so serious that we can disregard it only at our peril.

The federal census tabulates the population by age groups and proects its size into the future. The number of Americans aged 15 to 9 was 11 million in 1955. In 1965 t will be more than 17 million; in 970, more than 19 million. These children are already born and on their way toward adolescence. They will enormously expand the pool from which the high-school population of the future will be drawn.

An ever-larger percentage of the eligible age group will demand and receive a secondary education. As the process of formal education becomes the universal norm, the thing to do, those lacking education suffer increasingly. All the routes up now lead through the high school, and only the misfits or children of the very poor and underprivileged are pushed into the narrowing range of employments from which there is no exit. There is no indication that these trends will be reversed.

The challenge cannot be met simply by increasing existing facilities. The high school was developed for a rather select student body, and this much larger aggregate will not fit into its established forms.

The problems of the high school change radically as it begins to serve a clientele unselected as to ability.

TALENTED VS UNTALENTED

The situation of talented boys and girls is clear-cut. The old curriculum was made for them; the road to college and the professional schools is open; and a good deal of attention is being devoted to them. They will have to learn to avoid being dragged down by the average of the mass about them. But success in doing so is one test of their ability.

The high school has had less experience in dealing with those who, lacking competence or motivation, are euphemistically called the "academically untalented." The traditional course of study is beyond their grasp, the careers open to them are not clear, there is no room in the labor market, and they comprise a rising percentage of the student body. Formerly, it was possible to shunt them off to various vocational programs that all too often served mainly to get the less able out of the way of the others.

The old forms of vocational education will be even less useful in the future; the same economic changes driving more students into the schools also undervalue the handicraft skills that can be taught there. These programs, therefore, are growing at a far lower rate than are other sectors of secondary education.

Consequently, a large part of the high-school population finds itself enmeshed in an institution that has little relevance to present or future needs. These boys and girls have drifted on to the ninth grade because it follows the eighth. They are told to study subjects they cannot grasp and to acquire skills they may never use. Only athletics, marching bands, and their own social life rescue them from total boredom.

The secondary school must adjust to meet the needs of all these young people. In the 1960's, either it will prepare or it will fail to prepare them for citizenship and for careers.

NO SIMPLE FORMULA

There is no simple formula for reshaping the structure of an institution that prepares some youths for college, some for trades, and that is also charged with equipping all with the ability to vote, to drive cars, to make friends, and to take a useful part in life. The high school must now become something more than a bridge between elementary school and college, a function which hitherto shaped its development. It must focus its attention not on the preparation of one segment or another of its students, but on the development in all of them of the core of habits, ideas, and assumptions that will make them, to the best of their abilities, creative citizens.

To understand what such an institution can best teach, it is necessary to expose two pervasive errors in recent American thought about education. One is the assumption that what is taught is learned. Nothing could be farther from the truth. The rate at which knowledge fades after the final quiz in history, mathematics, or languages is rapid. What is taught simply cannot be equated with what is learned and remembered. Nor is it true that what is not taught will not be learned. When we wish to do so, we learn without teachers, and, sometimes, despite them.

To recognize that not everything that ought to be learned can or should be taught by the school is to set the problem of its curriculum within manageable terms. The high school cannot endow its students with everything they ought to know. It can only equip them to get what they need as they come to recognize the need for it.

TWO TASKS

Given its place in American society and the character of its students, the high school must focus on two tasks: It ought to impart to students the ability to communicate and to be communicated with; and it ought to introduce them to the quantitative techniques on which modern science and technology rest. If it succeeds in these tasks, it will give its graduates the equipment for future learning.

The function of the traditional curriculum elements—reading, writing, and arithmetic—are so frequently misunderstood by teachers as to make instruction in them woefully ineffective. When the class creeps through *Ivanhoe* at the rate of eight pages a day, it is not learning to read; when it parses sentences, it is not learning to write; and when it acquires facility in problem solving, it is not learning the nature of mathematics. The prevailing pattern of instruction has emphasized drill in rules and diligence in the performance of ritual exercises at the expense of understanding the content.

The incorrigible optimist within me insists that the high school can perform these tasks. The processes of comprehension, expression, and measurement can be made real and meaningful – even pleasurable – to adolescents at every level of ability. To do so requires only a decisive clarification of purpose.

MEANS AVAILABLE

Certainly, the high school has available the means of enabling its pupils to acquire through reading some familiarity with the important conceptions of our culture, and through practice in writing and speaking the ability to express themselves clearly.

The classics occupy a central place in such training. These are the great works of human intelligence which, wherever produced, have demonstrated the capacity for being understood over long periods of time and in a variety of places. Acquaintanceship with them introduces the student to the significant common ideas of our civilization. But if these are to be used effectively in offering the American adolescent a glimpse of the seminal ideas of our culture, there must be a change in what and how they are taught to make them more interesting and alive to the students.

ACTUAL PRACTICE

Reading is one prerequisite of learning to write; the other is actual practice in writing, and this the high school offers hardly at all. Year after year, the colleges face a dismal encounter with freshmen who in all their studies have composed only a few 300-word compositions, or less. No amount of exercise in word definition or grammar can take the place of the regular and frequent experience of setting words meaningfully on paper. Also, the disappearance of what a century ago was known as rhetoric has had deplorable effects in the broken sentences and indirect, ambiguous phraseology characteristic of American speech.

The content of instruction in reading, writing, and speaking can readily be adjusted to the varying levels of student ability. The untalented will command a smaller vocabulary; they will absorb a narrower range of meanings from stories; they will apprehend myths and metaphors more readily than abstract symbols or logical connections. But whatever they learn will be of immense use in establishing a means of communication with the rest of the society in which they live.

MATHEMATICS

I write with less confidence and less knowledge of what is wrong with the teaching of mathematics. That something is wrong seems certain. Most young people who are excellent at problem-solving and make perfect scores on the mathematical achievement test do not begin to understand what modern mathematics is about until well into their college careers. What does the vast majority who never go beyond plane geometry have?

The high-school teaching of mathematics seems to reflect the same concentration on rules and exercises that blight the study of language. It needs a shift in emphasis that will introduce all students, at different levels of competence, to the concepts of quantity and space they will encounter throughout their lives.

If the high school can supply a solid groundwork of training in the use of language and of mathematics, the rest of its curriculum need not be so rigidly specified. Let it recognize the variety of students who meet within its halls. Let it offer what courses in languages, art, music, history, science, bookkeeping, machine shop, personal behavior, and athletics its size, budget, and location dictate. Let the students move where interest and ability draw them. Above all, let it occupy the boys and girls in activities relevant to their present needs and to a future in which leisure may be as prominent a part of life as work.

There need be no fear either that talents will be wasted or that students will lack exposure to important aspects of our culture. Force an unwilling lad into a course in American history or physics and he will learn nothing of value and his presence will impede the learning of those with interest. Let him have instead his course in French or family relations. If he has really learned to read, he will someday see the relevance of the American history to his own life and find available the means of knowing what he should about it. Our colleges manage to produce geologists, astronomers, and philosophers without advance preparation at the secondary level. They can do the same in every sphere of scholarship.

As for the untalented, they will pass these four critical years sharing the social and communal experiences of their fellows. They will not be excluded from the realm of culture by their failure to go on to college, but will catch glimpses of it commensurate with their ability.

We may thus hope to imbue these young people with a sense of community that will make their future work worthwhile. We can endow them with enough awareness of the world in which they live to give them a sense of the value of their labor and of its relation to others. And that same awareness outside the job will help them lead useful lives as parents and children.

What is important is that the high school do well what it can do. It serves a democratic society at a point in the lives of its young people when their future is vague and undefined. It can do no more, but it must do no less, than to endow them, to the limits of their abilities, with the common attributes of our culture. •

"Frills" Aid Reading

A RESEARCH team, working under grants to the University of California College of Education, has found that courses often labeled "frills" are actually helpful in improving reading skills. Pack A. Holmes and Harry Singer, directors of the eight-year study, found that mechanical training, such as shop, was conducive to better reading. Musical training, too, was directly related to excellence in reading. Because of this, the directors reported, schools which are eliminating "frill" courses in favor of "strict emphasis on the three R's" may actually be hurting the skills they are trying to help.—From *School Management*.

A "Charge-a-Plate" to Education

Teaching Machines—Fad or Fixture?

LAWRENCE M. STOLUROW

In Teaching by Machine

TEACHING machines appear to be here to stay. They have many important implications for the future of education, some related to teaching and the teacher, others to the schools as an organization, including its personnel and physical facilities, still others to the effect on students.

The teaching machine seems to be a major breakthrough in education comparable to the book, radio, and television. Its potentiality needs to be explored and effective, efficient means devised for making it available. It can maintain the optimum conditions of communication and control considered essential in modern learning theory. Although mass media communicate effectively, they do not control. They are "open loop" systems, in that they lack the feedback ingredient vital to rapid modification of the learner's behavior systems. The teaching machine is a "closed loop" system which does provide feedback.

In effect, the teaching machine is an educational laboratory. It can do for education what the physics, chemistry, and psychology laboratories have done for their areas. The variables of interest can be manipulated in a rigorous way, conditions can be standardized, etc. The machine can provide information about methods of teaching free of uncontrolled variations due to differences among teachers. Once the basic variables in the instructional process are identified, they can be studied in relation to social and personality factors.

In the teaching process, the machine offers a flexibility in adapting program content and rate of progress to a degree superior to the traditional teacher-class organization. With the traditional arrangement, the frequency of reward and reinforcement is limited to the ability of one teacher. The machine, with flexibility and versatility of programing, can provide frequent learner-reward, can meet the most rigid requirements of

Lawrence M. Stolurow is Professor of Psychology, University of Illinois, Urbana. Reported from Teaching by Machine, *Cooperative Research Monograph No. 6, published by the U.S. Office of Education, 1961. 145–50.*

those stressing "mental discipline," can be either factual or thought-provoking, and can include logic or rote drill. Also, the pace can be adjusted to suit the rate of the individual learner.

One authority notes that the machine achieves more adequately the democratic ideal in education. It has equal patience for fast and slow learners. It responds in the same manner to the poor and the rich, to all races, creeds, and religious groups. Furthermore, with mass production techniques, it could extend education to illiterates and outlying groups who otherwise might not have the benefit of education.

While the machines have many implications for the teacher, outmoding or replacing the teacher is not among them. As early as 1926, S. L. Pressey, a pioneer in the field, pointed out that education was the most inefficient of any large-scale undertaking in this country. This, in his view, was due largely to a cultural barrier prohibiting application of modern technology to the teacher's problems, conservatism in the profession, and the fact that teachers were relatively cheap. Pressey said that introduction of automation devices would free the teacher for ". . . her most important work, her developing in her pupils fine enthusiasms, clear thinking, and high ideals."

In a later paper (1932), Pressey pointed out that labor-saving is not only legitimate in education but it may become an economic necessity. Since education is a large-scale industry, it should use quantity production methods. This does not mean mechanization of education but rather freeing teachers from clerical duties and drudgeries to give more time for guidance in learning.

Other authorities repeat that teaching machines are not devices for eliminating the teacher; rather they are a way of multiplying his effectiveness and implementing his instruction. The teachers would remain the responsible planner of the learner's instruction, but no longer tied to routine and specific detail of instruction and drill. The human teacher, free to plan and determine individual needs, can develop new efficient methods of instruction, keep course content up to date, and spend more time getting to know his students and his subject matter.

In a paper published in 1957, S. Ramo presents what is probably the most imaginative conjecturing about impact of teaching machines on the future of education with respect to its physical plant and management procedures.

SCHOOL OF THE FUTURE

In the school of the future, as Ramo sees it, the child will possess a "charge-a-plate" identification unit which would be inserted in a machine to identify him and to locate his records throughout his educational development. The typical school day would consist of a number of periods spent, as now, in rooms with other students and a teacher; however, some periods would be spent with the machine. Even in the classroom learning situation, which would involve not only a human teacher but also motion pictures and television, there would be programed questions to which the student would respond by pushing various keys. In this way the student becomes an active participating learner rather than a passive receiver of information and, with a machine, would be constantly in touch with the teacher.

When the student is alone in front of a machine-tutor he is equipped with controls that permit him to see animated films and other aids which contribute to his learning. In such a situation he is completely on his own and can pace the material at a rate he chooses. He is constantly required to respond to questions. The machine is prepared to go over a principle from time to time with altered presentations and additional detail, as required, and possibly switch to alternative methods of presentation, all available in its library on request. Ramo envisions all this to be backed up by a whole new industry.

SCHOOL PERSONNEL

With respect to school personnel, this revolution in education would mean that high-school teaching staffs would include educational analysts, specializing in various subjects, who would review student records on an individual basis.

The analyst specialists would diagnose information and difficulties and make recommendations for improvement. They would seek constantly to discover problems and needs for special attention through direct contact with teacher and pupil. Thus the school would be partially transformed into a guidance center. The staff member would be elevated to the role of thinker and planner. Teachers would provide the essential educational functions.

Ramo also envisions a new type of specialist, the "teaching engineer," an engineer concerned with the educational process and with the design of machines as well as with the design and programing of instructional materials, a person for whom knowledge of computer operation and programing would be essential.

STUDENT OF THE FUTURE

It is difficult to draw an imaginary picture of the student of the future. Since the industrial revolution, man seems to have learned to live with and derive benefits from a wide assortment of machines; the need to learn to use different types of machines seems to be accelerating. A new profession, human engineering, has developed to meet the challenges of this need. It is the human engineer's job to work with the hardware engineer at the design stage to achieve maximum efficiency. So, the teaching machine will be designed to be used by students. The demands made on the student will be minimal and will be determined by educational objectives, e.g., the need to learn to write.

If machines are widely used, the student may learn to study by himself and to play and work with others. Thus, an important separation will be achieved. After all, what symphony was written by a group? What scientific theory was the product of a group? While groups have a very important place in education and students need experience with groups, might it not be better for the student to study alone and to use what he has learned in a group setting?

A question frequently posed is whether these machines are just an educational fad or will they become a fixture in our schools. The answer is a matter of opinion and not of fact, since evidence must be accumulated for several years to come. Certain facts argue that teaching machines will become a fixture.

The machine can provide for controlling all teaching-learning conditions to a degree not attainable with books or other media. The machine is designed to take the learner from a state of lack of knowledge to full knowledge in such a way as to suit his individual needs. A conventional textbook does not always do this. In fact, in serving several purposes, such as storage function, access function, and teaching function, the book must compromise each to satisfy all. The machine, on the other hand, serves a single purpose: teaching.

Most mass media suffer from their failure to make specific cues and responses clear. Typically, they do not require an overt response which informs the learner of his progress. The teaching machine displays one item of information at a time and makes salient the critical cues. Also, if the learner fails to understand a point, he can repeat it before going on. The machine also requires or makes almost mandatory some form of response before correct answers are supplied. With a teaching machine, the learner is in control, in that his responses determine what he does next within the preplanned limits of the program. Thus there is feedback and adjustment of the learning situation to the needs of the individual.

The teaching machine, therefore, appears to be a potential fixture in the educational system and not just a fad. Its problems are those attendant on anything new; it takes time to derive maximum benefit from its use. •

A TEACHING machine is no better than its program and the skill and understanding with which it is used. It should be considered a promise, not a cure-all; a challenge, not a threat.—*Helen Nowlis*, University of Rochester.

What Teaching Machines Can and Cannot Do

ROBERT B. NORDBERG

In

The Catholic Educational Review

TEACHER, do you know these terms: Retractable Skinner Box, Single-door Lashley Jumping Stand, Graham-Gagne Runway, Pressey Multiple-Choice Board? They are varieties of teaching machines and if you do not know them now you soon will. These devices will be to the 1960's—for better or for worse—what the standardized testing movement was to the 1930's.

This articles will try to state what teaching machines can and cannot do, what opportunities and dangers they pose, and what should be done about them.

The writer some time ago developed a six-phase theory of communication and sought to indicate some of its procedural implications. One need not accept this theory totally to have a basis for highlighting the limits of teaching machines. However, the six-phase theory provides a handy way to analyze our problem. Here, briefly, are the six phases:

(1) The sender (writer, speaker) has ideas to impart. (2) He selects symbols likely to convey his idea. (3) He actualizes these symbols in speech, writing, or otherwise. (4) These concretized symbols are encountered by the receiver (reader, listener). (5) The reader identifies them as the symbols they are. (6) He associates meanings with the symbols—not necessarily the meanings intended by the sender.

An idea is the direct representation in the mind of the nature of something. It belongs to the spiritual realm, as does the intellect that conceives it. A machine belongs wholly to the physical realm.

In terms of the six phases of communication, what can a machine do? It cannot handle phase one, because only human or superhuman creatures can have an idea. It cannot handle phase two, because only an agent which can have an idea can relate a symbol thereto. The machine can deal with phase three *if* an intelligent human being using it is taking care of the first two phases and programing

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the machine accordingly. The machine cannot take care of phase four except in the case of a machine talking to another machine. The machine cannot take care of phase five, because it cannot contemplate a symbol in the abstract, but only rearrange concretized symbols. Nor can it take care of phase six, for that requires another intelligent being–the human receiver.

In sum, then, no machine, present or future, can deal with more than one (the third) of these six communicative stages, and only this at the hands of an intelligent being. In such hands, the machine can indicate to a pupil that he has or hasn't, the "right answer," but it cannot deal with interpretive problems that might arise. If the pupil is so hopelessly unmechanized that he demands to know *why* this is the right answer, or isn't, the machine might paraphrase Chaucer:

> I know not how these things
> may be;
> I give the answer given to me.

Educational psychologists generally agree that the two best proofs of meaningful, solid learning are paraphrasing and application. Machines can deal with applications only in an isolated, superficial way, and they have yet to do much with paraphrasing. It takes a mind to judge a paraphrase.

For the most part, these devices tend to operate under the stimulus-response psychology of Edward L. Thorndike. They fall short of any organismic treatment of the learner, and fall shorter of the concept of a learner who, besides being an organismic whole, is a rational creature.

Our critique so far has been concerned only with a hylomorphic versus a materialistic conception of the learner. Another very important, related aspect concerns education for organization and expression of knowledge as against education for "checking the right answer." Surely everyone will agree that systematic arrangement of material and clear and effective articulation are "of the essence" in education. The creed of the machine, though–and, usually, of those who find machines fascinating–is that everything is the sum of its parts. Partly because the machine cannot think, cannot program itself, it cannot in the last analysis help us at all in the crucial business of teaching students to organize and express what they know. This is doubted by some. Regarding a selfprograming machine, one writer declares, ". . . only the ostrichist will dare to say that the thing is impossible."

STULTIFY CREATIVITY

The problem of organization is taken up by E. Galanter of the University of Pennsylvania: "It appears that an aid can only teach association, or rote materials, and therefore can never teach a child to be creative, and, in fact, may result in stultifying any creativity that he may have."

Contrary to one verbalized fear, there is no danger that the machines will out-think their inventors and gain control of the learning process. The danger—indeed, the present and growing reality—is that many teachers will approach human learners as if they were robots, thus failing to utilize a world of opportunities for promoting insightful and integrated learning. The danger is that preoccupation with the trivia which has been the curse of schools since schools began will be increased incalculably by machines.

Another real danger is the nationalized (and almost certainly secularized) curriculum. Educational theory is already being shaped partly by vested interests of companies producing the sixty million standard tests taken each year in this country. Probably, in coming decades, theory will also be shaped by vested interests of makers and sellers of so-called teaching machines.

All this does not mean teaching machines cannot be of use. They can be of use in teaching cut-and-dried, completely unambiguous subject matter, such as spelling or simple computation, and only then when directed and actively supervised by a teacher and subjected to frequent review and criticism.

The writer would strongly urge teachers who are not mechanists and behaviorists to use them only for the above purposes, and to speak up bravely to all who make excessive and naive claims for the machines. Those who opposed the excesses and absurdities of the testing movement in the 1930's were called anachronisms and die-hards. Many who went all out for standard tests are now beating their breasts and confessing their folly. Must the whole cycle be repeated over machines? •

Machine Problems

- A card-punch calculating machine at Kent State University, Ohio, "flipped its digits" recently. The machine calculates each student's over-all grade for each university quarter. The machine indicated that 560 of the school's 7,608 students had flunked, and dismissal notices were sent out. Some of the students couldn't believe it. They checked with their deans. Result: Repairs were made on the machine, the cards were run through again, and errors were corrected.

- Nearly 1,000 wrong scores were reported last December for students who took the College Entrance Examination Board tests. An electronic scoring machine failed to "read" some of the student's identification numbers on the answer sheet. Some students received scores for tests they had not taken.

A Landmark in Educational History

The Battle for New York City's Teachers

MYRON LIEBERMAN

In Phi Delta Kappan

LAST June, New York City's teachers voted by more than an 18,000 majority in favor of collective bargaining by employes licensed by the superintendent of schools. During the 1961-62 school year, the city's 49,000 teachers will vote on (1) whether they favor a system-wide or divisional basis of representation; and (2) what organization they wish to bargain for them. This vote is likely to be one of the most important educational events of the 1960's.

The following is an attempt to clarify some of the major issues involved. Despite their crucial importance, these issues are not being clarified by the mass media, educational journals, or the competing organizations.

The significance of the New York City collective bargaining election is found in its potential impact on the National Education Association (N E A) and the American Federation of Teachers (AFT). Presently, the NEA with about 714,000 members (49 percent of the nation's total instructional staff) is by far the larger of the two organizations. About 1,317,000 persons are members of the 64 state education associations affiliated with the NEA.

In contrast, the AFT enrols just under 60,000 teachers, about 4.0 percent of the national total. Generally, teachers with membership in state and local federations join simultaneously in the AFT itself so the number of teachers enrolled in federations is very close to total AFT membership.

Myron Lieberman is author of The Future of Public Education *and is educational consultant to a major publisher. Reported from* Phi Delta Kappan, *XLIII (October 1961),* 2–8.

Although over-all AFT membership is much smaller than NEA membership, the AFT is larger in several major urban districts, such as Chicago, Detroit, and New York. In 1960-61 there were only 749 NEA members to at least 6,000 AFT members in New York City. Should AFT locals in these central cities establish themselves as bargaining agents for teachers, the results could be disastrous to the NEA. We are only a few years away from metropolitan teachers' organizations, and the organization which prevails in the central cities will eventually prevail in the suburbs. The New York City election may indicate the direction in which teachers are likely to go.

In view of the three-to-one vote for collective bargaining, we can assume that most teachers will vote for some organization. They could, however, vote for (1) an organization not affiliated with either the NEA or the AFT; (2) an organization affiliated with the NEA; or (3) the United Federation of Teachers (UFT), the New York local affiliated with the AFT.

Despite the many weaknesses of the AFT and the NEA, and despite the fact that less than 25 percent of the city's teachers are currently enrolled in these organizations, I doubt whether any organization not affiliated with either can win. The inevitable outcome of a vote for an organization without state and national affiliates would be inadequate representation or none at all at state and national levels.

The decisive point is that, under present circumstances, it is more realistic to work within existing national organizations than to start new ones. For this reason, we must analyze briefly the issues that divide the NEA and the AFT. The major differences concern administrator membership and affiliation with labor.

ADMINISTRATIVE MEMBERS

The NEA has no constitutional restrictions on administrator membership. The AFT has constitutional provisions prohibiting membership by superintendents and permitting membership to other administrators and supervisors only under certain safeguards designed to prevent administrator domination of AFT locals.

The NEA takes the position that the exclusion of administrators is not appropriate for "professional" organizations and also that, since administrators and teachers must work together, they should be in the same organization.

NEA literature on administrator domination ignores the fact that the American Association of University Professors has an even stricter prohibition against administrator membership than does the AFT. It also ignores the fact that today engineers and scientists, who have a much higher level of training than teachers, are enrolled in organizations which exclude administrative personnel from their ranks.

The NEA naturally denies the charge that it is administrator dominated, but policies proposed by its leaders in New York City would have weakened the teachers more than anything the Board of Education proposed. In November 1960, Eric Rhodes, director of the New York City office of the NEA, urged that "no organization be eligible for nomination as bargaining representative unless it gives complete assurance that it will adhere to the law and that it will not call its members into strikes." Similar sentiments were expressed by other NEA leaders at this time.

To tell your employer that you will continue to work no matter what he does—the practical significance of a no-strike clause—is to encourage the very kind of employer behavior that produces strikes. Unless there is administrator domination or orientation, it is difficult to understand why the leaders of a teachers' organization would advocate that recognition as a bargaining agent be limited to organizations which undermine teacher bargaining power even before the election is held.

A "no-strike" policy is often advocated as professionalism. Actually, all major professional codes of ethics not only permit but require their members to withdraw their services under certain conditions. However, since doctors, lawyers, and other fee-takers do not work for a single employer, there is no occasion for them to withdraw their services simultaneously. Thus even if it were true that they do not strike (and it is *not* true), the reason has nothing to do with the notion that strikes are unprofessional *per se.*

Basically, unrestricted administrator membership is wrong because it leads straight to totalitarianism. Employe organizations behind the Iron Curtain are too weak to protect interests of the public or their members. The reason is that these organizations are dominated by the employer.

Abhoring totalitarianism as individuals, NEA members are usually shocked to hear their membership policies described as such. But policies which are not totalitarian in intent can be so in effect. Unrestricted administrator membership in employe organizations tends to destroy the independence and integrity of the organization whether the employes be public or private, professional or nonprofessional.

Even the AFT has failed to recognize the pervasive influence of administrator domination in teachers' organizations. This is partly due to AFT inattention to the NEA and partly to the limitations of the AFT's program. For example, the AFT pays little attention to certification. In this respect, it is an ineffective union. Effective unions have always paid considerable attention to job control, through such policies as the closed shop or the union shop. Certification is merely a fancy name for job control, except that in education such control is not exercised by teachers' organizations.

In the abstract, most educators favor high certification standards. In practice, the superintendent frequently finds that he cannot hire a regularly certified teacher at the salary he is authorized to offer. Since he is employed to carry out his school board's policy, not the organization's, it is unrealistic to expect him to use his organizational influence to stop himself from hiring teachers with substandard qualifications. Thus, the teachers' organizations do not really throw their strength into eliminating emergency certificates because they are dominated by the superintendents—the group leading the charge on state education departments to issue emergency certificates.

Professional ethics is another important aspect of professionalization which has been corrupted by administrator domination of teachers' organizations. In an *NEA Journal* article under the heading "How Professional Am I?" such questions were asked as: "Do I support the policies of my principal and superintendent?" "Do I avoid criticism of my principal and superintendent in public?" Material like this, which equates professionalism with acquiescence to administrative direction, is professional nonsense.

The second major divisive issue, teacher affiliation with labor, finds the NEA objecting on grounds that teachers should not have obligations to, or be formally affiliated with, any particular segment of the population. The AFT position is that affiliation does not compromise teachers but provides them with support needed to gain objectives.

The argument that teacher affiliation with national labor bodies compromises the teacher has been clearly repudiated by the test of experience and weight of authority. The affiliation dates back to 1916. If this affiliation tended to produce the dire consequences attributed to it, the evidence should have been forthcoming long ago. Although NEA literature calls attention to the evils of affiliation, it does not cite cases where affiliation compromised a group of teachers. The evils are always assumed, not demonstrated.

The strike by the UFT on November 7, 1960, in New York City, illustrates many of these points. Prior to this strike, there was not one single public statement of strike support from the AFL-CIO, either in New York or Washington. When it ended, the head of the Central Trades and Labor Council in New York City gave public assurances that there would not be another. The next day, these assurances were repudiated publicly by the president of the UFT.

The evidence is dubious for the common belief that the federation gets its militancy from the labor movement. More likely, militant teachers gravitate to the AFT; affiliation with labor is probably a result more than a cause of their greater militancy.

It is too early to predict the winner of the upcoming election. But, regardless of what organization, if any, wins the election, it will be a landmark in the history of American education. By accepting bona fide collective bargaining, however reluctantly and belatedly, the New York City Board of Education is making one of the most important contributions to education ever made by a board of education in this country. Soon, it will be up to the teachers of New York City to rise to the occasion. For better or for worse, they have an unprecedented opportunity to influence the course of American education in the 1960's. •

A By-Product of Metropolitan Life?

Desegregation: The Northern Problem

WILL MASLOW

In Teachers College Record

THE decision of the Supreme Court on public-school segregation invalidated statutes in 17 states that compelled segregation and in four other states and the District of Columbia that permitted it.

The decision, by necessary implication, also outlaws segregation practices in northern states stemming from deliberate action of public educational authorities. Court decisions are, of course, aimed only at segregation resulting from "the sanction of the law." The Supreme Court was under no necessity, therefore, to pass on or even to refer to segregation that results when a homogeneous racial population, concentrated in a particular neighborhood, attends an all-white or all-Negro public school in that neighborhood. This *de facto* segregation, arising from neighborhood patterns not created by law, is primarily, although not exclusively, a northern problem.

The black ghettos in northern metropolitan areas create school populations that for all practical purposes are segregated. In New York City, for example, there are 94 public elementary schools (of a 570 total) with Negro or Puerto Rican enrolments of 90 percent or more. Similar situations exist in numerous other northern cities.

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That the educational level of children in segregated schools is markedly below that of their white peers is a matter of common knowledge verified by many studies. School segregation is obviously not the only factor responsible for this educational retardation but it seems clear that it plays an important role.

Does the Constitution require an effort to eliminate such *de facto* segregation? Judicial opinions abound declaring that the equal protection clause of the Fourteenth Amendment does not "affirmatively command integration" and forbids only the use of governmental powers to enforce segregation. A sound opinion requires closer analysis.

It is hardly open to doubt that, in violation of the Constitution, a school may be segregated in other ways than by a state statute or school-board resolution barring admission to nonwhite children. Illegal segregation may be effectuated by gerrymandering a school district or school attendance zones, by arbitrary site selection, by manipulating transfer policies, or by under-utilization or over-utilization of certain schools. It is immaterial that the word "race" or "Negro" is scrupulously avoided in official declarations. The crucial tests are motivation and effect. Nor must this constitutional right to attend nonsegregated schools necessarily have only a judicial remedy. The right may be affirmed and protected by administrative action of school authorities or legislative action of city councils.

In some circumstances, "culpable official inaction may also constitute a denial of equal protection." The recent case of *Taylor v. Board of Education of New Rochelle* is instructive. The court found that, beginning in 1930, the school board had gerrymandered district lines to confine Negro pupils within one school. Federal District Judge Kaufman, in a 48-page opinion, found that the New Rochelle school board had been motivated since 1949 by a desire to maintain the Lincoln school as a "racially segregated" school. Judge Kaufman directed the school board to submit within 80 days a "plan for desegregation" to begin no later than the 1961-1962 school year, marking the first time a northern school board was ordered to submit a segregation plan to a court.

Thus, the expanding concept of state action continues to develop. A school board does not immunize itself against judicial challenge merely by adopting a "neighborhood school policy," for, as Judge Kaufman held, "such a policy is not sacrosanct," and is "valid only insofar as it is operated within the confines established by the Constitution. It cannot be used as an instrument to confine Negroes within an area artificially delineated by official acts."

Boards of education may not, therefore, put the sole responsibility for segregated schools on residential patterns if they reinforce such patterns by their own actions or "culpable inaction." *Taylor v. New Rochelle* is a warning, as Judge Kaufman put it, that "compliance with the Supreme Court's edict was not to be less forthright in the North than in the South . . ."

As a step toward resolving the segregation problem, we have the forthright declaration of policy of the New York City Board of Education, announcing an intention to put into operation a plan to prevent further development of segregated schools and to integrate such existing schools as "quickly as practicable."

Such a declaration is only the first step toward a solution of the problem. A desegregation plan must be devised and put into operation. What are the essentials of such a plan?

One basic component is a realistic definition of segregation and integration. The prevailing southern view is that the admission of a handful of Negroes or even one to an all-white school desegregates it. The New York City Board of Education classifies an elementary school as segregated if its Negro or Puerto Rican population is either 90 percent or higher or 10 percent or lower. These precise figures have no independent legal or even psychological authority, merely representing the Board's conclusion that to achieve integration school populations must be genuinely heterogeneous with substantial numbers of white and Negro children. This opposes the thinking that token admission of a few carefully selected Negro children to "white" schools establishes integration.

Devices to perpetuate segregation are numerous and often difficult to uncover. Most important is a deliberate drawing of district lines to segregate Negro pupils. This gerrymandering to promote or retain segregation is obviously illegal. But, it is not sufficient that district lines be drawn without considering the ethnic composition of schools. Indeed, considerations of learning, the prime function of schools, must be paramount to such matters of convenience as ease of access. Lines must be placed that will foster, not hinder, desegregation.

We must distinguish between a school board's right to use zoning lines to reduce segregation and its legal duty to do so. In the New Rochelle case, the New York State Commissioner of Education held that a school board was under no compulsion to "gerrymander" school districts to achieve integration. In three prior rulings, the Commissioner rejected attempts by parents of Negro children to compel school boards to reduce *de facto* segregation by rezoning school district lines.

THE "PRINCETON PLAN"

The "Princeton Plan" offers a relatively simple method of achieving integration in small towns, or even in larger areas, where a Negro area is relatively close to a school serving a white one. School authorities in Princeton, N.J., assigned all children in the first three grades to one school in a Negro area and the other grades to a school outside the area, thus achieving integration. This plan is also used in Benton Harbor, Mich., Willow Grove, Pa., and elsewhere.

If integration is to be achieved, school authorities must have up-to-date information about the racial and ethnic composition of their schools and the neighborhoods they serve. It is not necessary to determine the race or ethnic origin of any particular student; a school board needs only statistical data about the ethnic composition of the schools. Complete or scientific accuracy is not necessary, and borderline or doubtful cases can be placed in one category or another. Without such information, school authorities must rely on guessing, an unreliable procedure when large numbers are involved.

Shall school zoning lines, once drawn, be rigidly maintained? Educators are not in agreement. Some feel that if children in a particular district are given permission to attend schools outside their district, white children will avail themselves of this to escape attendance at predominantly nonwhite schools.

New York City until recently maintained a strict policy compelling children to attend their neighborhood school. Similarly, the Pasadena, California, Board of Education, which has taken a firm stand against invasion of school zoning, has declared that it will not allow "practices by parents which alter the faithful racial representation of the geographical area served by each school."

On the other hand, Philadelphia has always had, and still maintains, the policy of allowing a child to attend any school in the city, provided that each school, after enrolling the children of its neighborhood, has room for others. The city's school authorities contend that this optional enrolment policy fosters rather than hinders integration, as has been charged.

Desegregation is only one part of the school board's task. Indeed, were it to stop at desegration, it would not perform its constitutional duty of equalizing educational opportunity for all its pupils. Children living in slums, with little or no parental supervision, moving frequently in the middle of school terms, with poor motivation and low educational aspiration, and occasionally speaking English poorly, require more than attendance at a theoretically integrated school to overcome such handicaps. The condition of physical facilities, expenditures of pupils, class size, caliber and experience of teachers, and the character of curriculums must also be equalized. With the above as functioning factors, the inequality between segregated and all-white schools is often flagrant.

Special and massive efforts are required to bridge the gap between the achievement levels of the Negro or Puerto Rican slum-dwelling child and more fortunate students. Can a board of education reduce this differential without waiting for the community to end the slums, the low incomes, the social disorganization, and the racial discrimination that create it?

Equalizing objective educational factors will not wipe out the enormous disability of living in a slum and in a society that still subjects the Negro to inferior status, an inferiority that he often accepts as his lot. But such efforts help considerably to fulfill the constitutional and moral mandate imposed on boards of education.

De facto segregation is not an inevitable by-product of metropolitan life. It can be attacked and, if not eliminated, at least reduced considerably. Segregated education is educationally undesirable. School authorities have, therefore, an educational as well as a moral and, in some situations, a legal obligation to do all within their power to achieve integration and to equalize educational opportunity for all the children entrusted to their care. •

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Team Teaching: A Review

STUART E. DEAN

In School Life

Stuart E. Dean is Specialist for Elementary - School Organization, U.S. Office of Education, Washington, D.C. Reported from School Life, *XLIV (September 1961), 5–8.*

Of all the ideas to come out of the current reappraisal of the elementary school, team teaching is one of the fastest to capture both professional and public attention.

In the ordinary meaning of language, team teaching suggests merely a kind of cooperation among teachers. It is far more in the meaning now being given. It is a way of organizing a school, of utilizing staff, and of using space and equipment.

There are only a few definitions of team teaching available, and none of them say quite the same thing. Taken together, the definitions suggest that team teaching may have some answers for some questions and problems. In effect they suggest that team teaching can take various forms, but that whatever its variations, it is essentially a way of organizing the instructional program at either the elementary- or secondary-school level. Teams may work "vertically" through the school (at all grade levels in a single subject or closely related subjects); or they may work "horizontally" (at one grade level but in several subjects). For example, all teachers in the language arts may work as a team with all pupils from grades 7-12. Or, all teachers in grades 5-6 may work together with each teacher taking the chief responsibility for classes in his special field.

Even a small team has a leader, and many large teams have a hierarchy of levels with different titles for its members, such as "team leader," "master teacher," "regular teacher," and "intern." Many teams also include nonprofessional people, such as aides and clerks to assist the teachers.

Team teaching is certainly more than a group of teachers amiably agreeing to work together. It is an almost unprecedented kind of unity: Members of the team plan together, collaborate constantly, communicate without restraint, and share sincerely and selflessly. Working together they can revise procedures and revamp programs to meet the educational needs of their pupils. In a sense, the movement may be considered something of a revolt against the organizational restrictions of the past and a sharp reminder that the purpose of school administration is to serve the educational process, not control it.

EVALUATION

The team-teaching idea has been in practice for so short a time in so few communities that conclusive evidence of its effectiveness has not accumulated. The oldest project is only four years old. This is at the Franklin School in Lexington, Mass., sponsored by Harvard University's School and University Program for Research and Development.

It is from this project at Franklin that most of the evaluation of team teaching has come. An objective summary by the project's director, Dr. Robert H. Anderson, indicates that team teaching is not "disadvantageous" to children, and that its results warrant further experimentation and refinement of proceedings. As for its effects on pupils—in personality growth and in adjustment and achievement—Dr. Anderson thinks them "no less satisfactory" than effects in a traditional setting. He has found no evidence that children suffer emotionally or academically or in any way feel "lost" in the process. The reactions of the teachers have been favorable. And nearly all parents report that their children enjoy their team-taught school and benefit from it.

In due time, more bases for judging the worth of team teaching will be at hand. Present evaluation is almost entirely in the realm of personal opinion and speculation.

Opinions about team teaching are not sharply divided. Some of the proponents are as ready as the critics to point out practical problems and raise provocative questions; and many of the critics concede that team teaching promises much, at least in theory.

ADVANTAGES

The following are some of the advantages being claimed for team teaching:

It is good organization. As a plan of organizing for instruction, it preserves the virtue and avoids the weakness of both the selfcontained classroom and its opposite, departmentalized instruction. It makes it possible to have every subject taught by a specialist, yet it preserves the interrelatedness of subjects and learning. It makes the most strategic use of each teacher's knowledge and skill.

The pupil profits. Having the academic advantage of being taught each subject by a teacher strong in that subject, the pupil is more likely to find scholarship attractive and be challenged to work to capacity. His interests, abilities, and needs are more likely to be discovered when he is taught by two or more teachers working closely together. The flexible grouping and regrouping that characterizes many team-teaching programs provides more realistically for pupil differences than straight "ability" grouping. The quality of instruction that a pupil receives during any one school year is not dependent on a single teacher.

The staff profits. There is more professional and personal stimulation for members of a teaching team than for a single teacher working in isolation. There is better communication, more motivation for continuous curriculum improvement, and more cooperative planning. The team places a premium on ability, skill, and exceptional leadership qualities, which encourages teachers to grow professionally.

The school profits. There is more opportunity for flexible schedules and efficient use of space, materials, and equipment that works to encourage the administration to respond to changing needs rather than to be restrictive. The team provides room for different levels of teaching ability, making it easier to set salaries according to professional skill and leadership and easier to provide inservice training for inexperienced teachers.

QUESTIONS

Among the many questions being raised concerning team teaching, the following are most frequent.

What are we talking about? Does not the present loose application of labels and terms lead to a possibility that the basic concepts of team teaching will be misused and abused? Does not a leap aboard the bandwagon now entail a risk of missing entirely team teaching's idealistic purposes until precise definition and full understanding are possible?

Are the assumptions sound? On what basis have we judged inadequate the present methods of school organization and instruction? Can we safely assume that all teachers are qualified by temperament and training to work effectively as members of a team? Is the theory valid that some things can be taught more efficiently in large groups? Are we certain that children learn more from a subject-matter specialist than from a generalist?

How do we surmount the practical difficulties? How can we get enough teachers specially trained in subject matter and team relationships? How will we meet the increased salary and operating costs? How serious are the limitations of our present school buildings for housing this sort of problem?

Could team teaching become form without substance? Does not history suggest that our schools have a tendency to become so preoccupied with innovations which make them the ends rather than the means they were conceived to be? Why not evaluate team teaching on the basis of its contributions to classroom practice rather than on administrative efficiency, popular expediency, or glamor given by publicity? Is there not an ever-present danger that we will overemphasize organization and, in so doing, distort our sense of the educational values of the elementary school? •

A Refuge among the Ruins

In Overview

EVERY year about 400 to 500 natural disasters — floods, hurricanes, tornadoes, forest fires, blizzards—ravage communities in the United States. No section of the country is free of the danger.

The schools are in a key position during these disasters. Reports of major disaster operations show that school facilities and personnel are utilized in mass shelter, feeding, and medical care programs. But, despite the recognized responsibility of schools, many administrators have done nothing about preparing for such an eventuality.

A survey by the George Peabody College for Teachers reveals that few county or large-city school systems have disaster-preparedness plans. Moreover, fewer than half the state departments of education bother with potential school disasters other than fire. Even in those states which have had tragic experience, schoolmen appear to believe, according to the Peabody report, that disaster planning is a problem for local government and not for the school.

That every educational institution should have a disaster plan appears obvious. An abundance of literature on planning is available from the U.S. Office of Education, the Office of Civil and Defense Mobilization, and the American Red Cross. Adoption of these plans will vary with the location, size, facilities, and personnel of each school. But the *need* for adoption does not vary.

To learn from those experienced with school use during a disaster, consider Galveston County, Texas. Major disasters have struck this Gulf Coast area on the average of once every other year for the past 14 years.

For many years, Galveston tradition dictated that publicly-owned buildings be opened during hurricane storm warnings so that citizens could find shelter. The City Hall, County Court House, and City Auditorium were used, although Red Cross surveys showed that feeding, medical-nursing, sleeping, and toilet facilities were inadequate in most of these buildings.

George K. Graeber, chairman of the Galveston County Red Cross Chapter, explains that, "As time

Reported from Overview, *II (October 1961), 54–55.*

went on, more people began to go to the schools in disasters, having discovered that school plumbing didn't break down, that a kitchen was available for preparing infant formulas, and that there was a place to get into a supine position—a body was not forced to sleep jacknifed across a row of uncompromising auditorium seats."

Over the years, discussions have been held between the Red Cross and district school superintendents throughout the county, and informal agreements have been reached.

These discussions and unwritten agreements have resulted in Galveston's version of a "shelter management team" consisting of: a shelter manager (usually the school's principal) with "ultimate authority and responsibility" of the shelter operation; a communicator to answer phones and operate the two-way, citizens-band radio; a driver with a vehicle capable of traveling through a three-foot depth of water; a registered nurse; a cook in charge of the cafeteria; and a policeman to patrol the building.

Galveston's experience has shown that the best laid plans can bog down over minor details. One problem which came up was simply "how to get in"—who had the keys and responsibility to unlock buildings. This was solved by giving the responsibility to school principals and janitors.

In Los Angeles, top school officials have also worked closely with the Red Cross on the care of civilians in any disaster. Their plans were spelled out in a 1958 bulletin to all school principals and junior-college directors.

In the Los Angeles plan, a school administrator acts as chief of the school division in each of the 35 Los Angeles civil defense districts. A school principal will coordinate the welfare center, which serves as the administrative headquarters of the district's evacuation and shelter division. School safety regulations also require that one-third of all teachers, one-fourth of all classified personnel, and all bus drivers have current Red Cross first-aid certificates.

MOST LIKELY DISASTER

The nature of the disaster most likely to occur in an area also affects the type of local disaster plan needed. Forest fires are common in the Los Angeles area. During a recent fire in the Malibu section, one school served as a disaster shelter, feeding and caring for 325 people for a period of five days. Other schools were not affected, as this was a localized disaster.

In Dade County (Miami), Florida, hurricanes are a common local disaster. The Dade County school's disaster plan is similar to Los Angeles but has specific adaptations in response to the behavior of hurricanes. Officials select as shelters only those schools (or parts of a school) without large expanses of glass but with interior corridors. Also, instead of opening only one or two shelters, as in Los Angeles, all schools designated as shelters are opened in Dade County when a hurricane warning is issued.

Since no one can predict when disaster will strike, plans must be flexible enough to work even when schools are closed. Last spring, while schools were closed for vacation, the Cedar River flooded Cedar Rapids, Iowa. Two schools were used as mass shelters with principals, teachers, nurses, janitors, and cafeteria workers voluntarily serving for the four-day emergency. This and other experiences—notably in the Worcester, Massachusetts, tornado of 1956—bear out the theory that school personnel prefer to cope with an emergency themselves rather than have "outsiders" come in to direct operations in "their school."

As President Kennedy said in a telecast last July 25, "We have another sober responsibility: to recognize the possibility of nuclear war in the missile age. Without our citizens knowing what they should do and where they should go if bombs begin to fall would be a failure of responsibility . . . In event of attack, the lives of those families which are not hit in a nuclear blast and fire can still be saved, if they can be warned to take shelter, and if that shelter is available."

This is a real challenge to every educational executive. In most communities the shelter is available—it's the school. It is for school people, working with other public officials, to develop the right disaster plan for their community.

"The time to start," President Kennedy said, "is now." •

Disasters and Tension

• There's a moral somewhere in the story of the Florida resident who had ordered a new barometer. When it came in the mail, he opened it, only to find that the instrument registered "Hurricane." He shook it, even turned it upside down, but everything failed to make it act normally. This incensed him so that he sat down and wrote a letter of complaint to the store. He took the letter to the post office, some miles away. When he returned he found that his house and the new barometer had been blown away.—From *North Carolina Education*.

• You can't stop trouble from coming, but you don't have to give it a chair to sit on.—From *Lexington, Ky., Kiwanian*.

• "People seem so worried these days that they have forgotten how to relax," said the college professor. "Why, sometimes as I look around the room while teaching, I can see hardly anyone napping."

Education of the Majority

MAURICE J. THOMAS

In School and Society

EDUCATION in our governmental system has dual objectives: to develop highly competent citizens and to provide a strong educational program for all youth. We believe that each student should receive quality education to develop to the highest potential his talents, capacity, interest, and the best interests of the nation.

The philosophical base for this kind of education was laid by our early national leaders. Today there are disturbing signs that we are failing to appreciate and sustain the early concepts of our responsibility. It would appear that we are giving greater emphasis to quality education for the few, looking with more favor on academic enrichment of the talented, and minimizing citizenship training of the total population.

Education is a governmental function, mandated historically, and is the obligation of all in a democratic society—both to support and to receive. The matter of how to fulfill this responsibility has become confused. We can justify compulsory education and compulsory taxation for the purpose of preserving and furthering our system of government. It is more difficult to defend the invasion of a citizen's freedom of action and the expenditure of taxes to further the education of the neighbor's children to enhance their personal advancement.

Change is a pattern of all cultures. But change must have purpose and deliberate direction in relation to values and accepted goals, and change must be consistent with national democratic ideals. Shifting emphasis, based on altered circumstances, is the right and the obligation of each generation. The acceptance and/or the development of the circumstances should come, and be accepted, only in terms of the values transmitted, analyzed, and weighed in relation to alternative courses of action and a decision arrived at as to which will more readily and justifiably pro-

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mote the general welfare. Each era has a right and a duty to appraise handed-down arrangements in the light of new knowledge and insights.

Education is constantly in the maelstrom of evaluation, as it should be. Too frequently criticisms are made not to improve, but to alter basically existing values, to reduce costs, or to deny education to someone who fails to come up to "tests" as determined by some critic.

It is right and proper that our society be concerned and take action to insure the highest training possible for those exceptionally able. This develops from the principle we have accepted that each has a right to the best education in terms of his talent and capacity. But we must not forget that this is not the exclusive right of the academically gifted. It is essential—even if it is more costly—not to sacrifice the great majority by having them subsidize the "exceptional," or the minority. After all, every child is exceptional.

There is a tendency to downgrade those of average or below-average ability, with some—even in the education profession—saying, "Drop them from school." They contend that schools exist only for transmission of academic learning. This contention is false. To train for citizenship is the first responsibility.

It is naive to assume that youths of 16, 17, or 18 years are welcome as workers in our economy. If these young people are not wanted in our schools, they are wanted even less by our economic structure. If ignored or neglected by our schools, they will be relegated to menial tasks, undirected, uninspired, and lost.

Furthermore, if rigid academic standards are applied and we "rid ourselves" of educative responsibility to those less gifted, some other force in our culture will take over the educational function for these youths—an extreme danger for citizenship training. Already too many baleful influences are at work—conditioning the young—to allocate deliberately this task to the untrained, misinformed, and casual "teacher." Anyone becomes a teacher when he directs the activities of others; even the casual associate in leisure and play or the employer is an instructor. Educators and school boards should give this problem serious consideration before taking the easy way out.

COMMUNITY RELATIONSHIPS

Education exists within a community setting and directly or indirectly affects every person residing therein. The relationship of education to the community is homologous to the community's setting within a geographical area and is dependent on materials and services from some remote place as well as from communities adjacent. Just as a community is not an entity unto itself, our schools do not exist in a vacuum unconcerned and unrelated to the people whom they serve and by whom they are supported.

The strength of education as we know it today, as well as many of its weaknesses, lies within the community pattern where our extensive free public educational system was born. The variety of educational experimentation and the development of more efficient practices and organization are the fruits of varied community study and solutions of community problems. There must be no conflict between education of a free people in a democracy and full development of each individual's potentialities.

The challenge to education and community leaders to build on the foundations of the past in making more effective the interplay between the community and the school is great. There are few signposts along the way, and there is far more involved than an "effective academic program." Total child growth and development should be the true objectives.

HUMAN RELATIONS

It is in this field of human relationships that society and its institutions break down. The literature in this area is rich; but effective and workable solutions are rare, and few prove lasting. It is more difficult for the "best and wisest" to affect proper relationships between men who have the capacity to think than it is to make progress in harnessing the forces of nature and natural resources for universal benefits. This is, of course, one of the weaknesses of individuality in a society. It is in this field that education can make its greatest contribution in the future. The rapid accumulation of scientific knowledge, the practical application of inventions, and the use to which all natural resources are being put insure an ever-rising standard for our material wants.

The most pressing and crying need of society is in the field of human relations, for it is at this crucial point that many of our leading citizens fail to understand their role in American democracy and the part they should play in bulwarking and improving our educational system. This problem must be faced; and personal, racial, economic, religious, and nationalistic clashes must be resolved by means that will not destroy the high standards that our scientific and materialistic ingenuity have made possible.

Education must give thoughtful attention to creating a desire and developing a capacity on the part of all to resolve the conflicts without passion, but with reason and fairness to all concerned and in the interest of society in general.

As all classroom teachers know, teaching is easy and highly satisfying when the student is bright, eager, and industrious. It is more difficult to motivate, create interest, and train the less able or the unwilling. But formal agents of the culture in our democratic society—those in the educational profession—have an obligation to all. •

When Teachers Help Plan the Curriculum

John A. Dewar

In Educational Leadership

INVOLVING teachers in curriculum planning is an essential aspect of a good school and a most rewarding enterprise. A teacher involved in planning the curriculum for students he is to teach has a personal stake in the matter and usually does a better teaching job.

There are numerous ways of involving teachers in curriculum planning. Three ways – summer workshops, year-round workshops, and classroom research (sometimes called "action research")–have been found useful through this writer's experience in one school district.

With the summer workshop technique, the board of education finances a two-week workshop for teachers each year following the close of school. Attendance is on a voluntary basis and teachers may secure college credit or board-of-education credit for salary advancement. Participating teachers are asked to make three suggestions as to the curriculum area in which they prefer to concentrate. When an area is selected, an expert in the field is secured to consult with teachers and administrators to plan and conduct the workshop.

In past years, successful summer workshops were completed in the areas of arithmetic, art, language arts, and the gifted child. In some cases there were no visible, concrete outcomes resulting, but those working with teachers saw them benefit through the use of modern approaches to teaching and improved techniques. Another benefit is an increased awareness for workshop participants of the importance of areas of learning and their relationship to the total program.

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With a year-round workshop, the school district supports teacher participation by providing planned time during the school year for teachers to work on curriculum. Teachers report to their assignment one or two weeks prior to school opening and meet several times on a district-wide basis by grade groups. Projects for the year are discussed and decided on at these early meetings. Throughout the school year the grade groups meet at least once a month to work together. School is dismissed one-half day per month for this purpose.

To involve teachers in over-all curriculum planning, interest groups were used, meeting on a basis similar to the described grade groups. These interest groups were made up of teachers across grade-level lines working in a curriculum area of mutual interest.

Curriculums of the social studies, writing, spelling, reading, arithmetic, science, kindergarten, physical education, and music all have had the benefit of teacher planning. Areas such as classroom control and reporting to parents have also had thorough discussion and planning by means of the year-round workshop.

The sixth-grade social studies program has been completely revised—the idea and the revision resulting directly from teacher interest, initiative, and planning.

Through these year-round workshop sessions, other curriculum areas have had benefit of revision as teachers have seen the need in these areas and initiated action.

Every teacher in the district is encouraged to carry on classroom research (action research) in various areas of learning. This activity usually takes a form of simple research in the techniques of teaching in a curriculum area. The results are reported to the appropriate grade group and other interested groups. Some of the benefits include improved classroom climate, improved teaching of spelling and writing, plus intangible gains to the teacher and the students that is evident to a visitor.

There are certain criterions which should be present if teacher participation in curriculum planning is to be meaningful and effective.

The following list is neither exhaustive nor exclusive, but for the most part, if these conditions are present, creative curriculum work can take place:

There must be time provided for teachers to work.

The administration must encourage teachers to carry on curriculum work.

The administration must give guidance to work in progress.

The administration must recognize and give consideration to the work teachers produce.

The administration should adopt and implement effective and appropriate curriculum revisions.

The teachers must feel free and should be encouraged to conduct experimentation, either in their own classes or district-wide.

In the school district described here, an administrative team including the superintendent, the curriculum coordinator, and the several building principals met once a week to coordinate curriculum planning work. Thus, all administrators were kept informed and could encourage and guide teachers in the work they were doing at the time. This was most important, as the administration must be enlightened to permit and encourage curriculum work to proceed. The attitude and initiative of the teachers will reflect the attitude and initiative of the administrator. •

An Economic Battle

The Root of Opposition to Federal Support

John McCormally

In Washington Education

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YOUNG America returned to school in September against a background of loud and bitter bickering over the future of its schools.

The fight over federal aid to legislation is, on the surface, a political fight, with spicy dashes of racial prejudices and religious bitterness thrown in.

Under the surface, it is an economic battle—one of the oldest and hardest-fought in this country. It falls in the classic pattern of historic battles between the *haves* and *have nots.*

It is not popular—or even polite—to describe it in these terms. We are all brainwashed from childhood to pretend that the United States has no classes or masses, no sharp and fundamental disagreement between its *have* minority and *have-not* majority.

We all are supposed to be of a mold—good, purt, freshly-scrubbed Americans, believing that capitalism and free enterprise came down to us on stone tablets from the mountain, and that democracy was devised by angels.

The truth of the matter is that the minority, who are the elite financially and culturally, do not trust democracy very far. They tremble—and with good reason—at what would happen to their wealth and position if the masses could bring the vote of the majority into full play. And they have spent the better part of 200 years devising ploys (such as the House Rules Committee) to thwart the will of the majority, all the while paying lip-service to the word "democracy."

And the majority, while it admits to something patriotic in the word "capitalism," particularly since it has become an antonym of "communism," nevertheless exerts most of its political energy—at least since the last century—controlling, curtailing, and transforming capitalism into some forms of socialism.

The first and greatest of these social programs—of channeling the nation's wealth to benefit the masses—is the public-school system.

But free public education (radical as the idea was and still is to some untainted patriots) was for a long time no great economic threat. As long as it remained local, it could be controlled. The masses might fill the schools with their children, but the community leaders–its business and professional men–those concerned with preserving the community's wealth, controlled the schools. And they kept them inexpensive.

This meant in most cases keeping them inadequate and crowded, with vastly underpaid and sadly undereducated and underinspired teachers. But it was cheap.

But education feeds on itself. Two generations ago, when utterly uneducated parents sent their children to school, they were amazed, overjoyed, and endlessly grateful for the one-room building and $30 teachers which the local landowners magnaminously provided.

A generation ago, more parents had finished high school, some had gone to college, and they began to insist, for their children, on fireproof buildings, teachers with degrees, and public high schools big enough for everyone.

This generation, with vastly improved tastes, wants pastel walls and multipurpose rooms, exceptional child programs, teaching of foreign language, teachers with two degrees, and public colleges big enough for everyone. This is not cheap. So the fight between the people with wealth and the people with kids has developed and grown. And each time wealth won–digging in its heels and throwing up a wall against more spending–the parents (ably led by professional educators) simply went around the wall and began the fight all over again, in a larger arena.

When district funds no longer sufficed because some districts were poor in property and rich in kids, the fight was made for county funds–for funneling wealth from rich districts to poor ones. The next move was for state funds–to funnel wealth from rich counties into poor ones. And now the battle is for federal funds–for funneling funds from rich states into poor ones.

But the change is more than geographic; the method of taxation changed, too. The school district is limited to taxing real estate, no longer necessarily a true measure of wealth. But state and nation, with their sales and income taxes, are in much better position to "stick" the rich.

So the battle goes on. This year, traditional foes of federal aid, such as the National Association of Manufacturers and National Chamber of Commerce, have been helped by such strange bedfellows as J. Strom Thurmond, who is afraid the Negroes will get in, and Cardinal Spellman, who is afraid the Catholics will be left out.

Familiar cries of combat warn of the dangers of federal control, although numbers increase who refuse to be terrified of their own government.

The real battle involves no such principles. It is simply, unglamorously, a matter of money. That harsh, impolite, economic truth is at the root of the opposition to federal aid to schools. •

Three Ways in Which We Are Alike

Education Problems Common to Great Britain and the United States

WARREN A. KETCHAM

In The University of Michigan School of Education Bulletin

Warren A. Ketcham is Professor of Education, University of Michigan, Ann Arbor. Reported from The University of Michigan School of Education Bulletin, *XXXII (May 1961), 125–30.*

THERE is a remarkable similarity among educational problems facing Great Britain and the United States and the desperate search for solutions taking place in both nations.

It is not recognized generally that the two nations are facing common educational problems, probably because the problems do not rise *directly* from the very different educational organizations and practices. The problems rise *indirectly* from common philosophical and social ideologies.

The common ideologies are frequently overlooked when undue emphasis is placed on the more obvious contrast in political and financial organizations and practices of the two nations. In government as in education, it is easy to forget that different solutions to the same problem may be equally logical but equally ineffective. Consequently, the following discussion is designed to divert attention from marked differences and to direct attention to critical common problems for which more adequate solutions will come through cooperation.

The three problems considered have been selected because they are the focal points of discussion in lay, professional, and legislative groups in both Great Britain and the United States. They are problems for which educational leaders in both countries are urging more research, hoping that solutions will be based more frequently on evidence rather than on compromises between divergent, and often fallacious, opinions about education.

HOMOGENEOUS GROUPING

The first problem is: *Does homogeneous grouping in elementary and secondary schools increase academic achievement?*

It is difficult to ascertain the strength of trends regarding ability grouping in schools in either country. It is safe to say that the trend in each country is in an opposite direction, especially at the elementary level.

In the United States homogeneous grouping was practiced rather widely, especially in large city systems, in the 1920's. The results were disappointing to parents, teachers, and administrators. As a result the practice had almost disappeared by the late 1930's. New generations of parents and teachers have failed to review experiences of past generations and the result is a new wave of enthusiasm for homogeneous grouping in both elementary and secondary schools in the United States.

In Britain, the 1944 Education Act made homogeneous grouping or "streaming" mandatory. After 15 years, disappointment with results is appearing among British teachers and parents. Evidence which questions the desirability of the practice is increasing.

In Great Britain, the importance of homogeneous grouping to the British policy of limited education for the many and extended, complete education for the few frequently goes unrecognized. The practice provides the best means of eliminating large numbers of pupils between 11 and 18 years of age from educational routes to a university. Eighty percent of the school children are eliminated at age 11, 95 percent have been eliminated by the time they are 18.

Grouping of children at the secondary level in Britain has recently undergone some change by virtue of the appearance of the "comprehensive secondary school" in many communities. Instead of grouping secondary pupils for enrolment in distinct schools (grammar, secondary-modern, and schools for the educationally subnormal), in some communities pupils of all ability levels go to a "comprehensive secondary school" where they take separate programs of study, similar to the college preparatory, commercial, and general curriculums in vogue in the United States in early decades of this century.

Under the conditions mentioned, there is a growing tendency to reexamine the validity of the procedure which, at age 11, groups students according to ability for the different programs of study.

What does the future hold for homogeneous grouping? Results of the practice are overshadowed in both countries by beliefs and feelings. Teachers in both countries prefer generally to teach the brightest pupils. The parents of bright children usually favor ability grouping; the parents of children placed in groups for the less bright do not. When the brightest children in a school in either country are grouped together they are invariably the highest achievers in the school, by any standards. Grouping is then interpreted to be the cause of the high achievement.

Actually, grouping has not advanced achievement of high-ability pupils, but many people looking at the impressive superiority are immediately convinced that grouping is responsible.

There is one promising element in the confusion evident in both countries. A large number of people in Britain and the United States are insisting on better evidence regarding the effect of the practice of homogeneous grouping on children's school achievement.

COMPULSORY EDUCATION

The second problem: *Should compulsory education for all be extended to age 18?* Since the end of World War II, the British have been mindful of raising the compulsory school attendance age. Presently, the legal school-leaving age is 15. The advance of automation and the resultant loss in effectiveness of the apprentice system have reduced employment possibilities for young people. To this economic necessity must be added a growing need for better educated workers and technicians.

A longer school life appears to be a wise move. But the British know that simply raising the legal age for leaving school is not enough. They realize that adolescents want an education which they see personally related to their needs and purposes. Any modifications of present practices will have to be away from the heavy emphasis on academic courses in curriculums of all secondary schools. Some insight into what the British are considering is provided by the Crowther Report, which states that "We are very far from decrying the academic tradition which inspires and is embodied in our grammar schools and universities . . . It is not, however, the only road by which good minds can travel."

In the United States, there is a growing trend among secondary schools toward a return to more academic courses for all students, with curtailment of life-adjustment, core, industrial-arts and fine-arts courses as requirements for traditional and scholarly subjects increase. This is frequently praised as a return to the only proper purpose of education—the training of the intellect. If the drop-out rate increases as a result, it is only for the better, the reasoning goes. Unworthy students will be eliminated and teachers will be left free to concentrate on promising and worthy students.

This trend and the underlying reasoning ignores the evidence that neither the particular kinds of courses taken in high school, the size of the high school, nor the question of the secondary school being public or private are closely related to students' college success.

Much more related to success in college, and success after school, are the student's intellectual maturity, his personal-social maturity, and the sincerity and depth of purposes motivating him.

Right now, American secondary teachers could assist British secondary teachers in efforts to find ways to provide for larger numbers of students. In Britain and the United States many able secondary students will reject the opportunity to attend school beyond the legal leaving age if the curriculum is primarily academic. For 25 years American high schools have been experimenting with curriculums designed to meet the needs and purposes of all adolescents. Efforts have not always been successful or even praiseworthy, but much of real value has been learned.

The statement, "Secondary education is, then, in our view essentially the education of the adolescent," has been endorsed in Britain. Only American secondary schools have attempted to show how that statement could become a reality. It is a most difficult task and, under attack from all sides, the corps of American secondary-school teachers has lost heart. In some communities, it is in full retreat from an enviable position of imminent success.

The chief reason for the loss of heart is that the American high school was expected to do for 66 percent of American youth what the British grammar school does for the brightest 20 percent of British youth. Still, most British teachers and citizens agree that there are no important differences in achievement between the brightest secondary students in either country.

COLLEGE BOUND

The third problem is: *Who should go to college?*

In Great Britain, the privilege of attending a university is limited to 5 percent of the population. In America, a college or university education is provided for roughly six times that percentage of the population. Evidence indicates that this is done without jeopardizing achievement of the bright students. This and other basic differences between British and American higher-education institutions are seldom recognized.

The British university is concerned primarily with mastery of content in a few scholarly subjects, usually three, sometimes only one. University studies do not prepare students for a profession. Baccalaureate degrees are awarded at the end of three years of study; professional training follows and is acquired by working in industry, hospitals, government agency, or some other such habitat of the profession concerned. Teacher training colleges and technical colleges award diplomas and certificates, but not degrees. Neither universities nor colleges in Great Britain are concerned with anything similar to what is known as a liberal arts education in the United States.

In both nations, there is a rapidly growing demand for places for more students in colleges and universities—a demand for an increase in opportunities for a larger percentage of young people as well as the demand for an increase in real numbers.

These three educational problems common to the two countries are very important. Recognition and understanding of similarities and differences between British and American educators are vital. The future of education in Great Britain and the United States depends to a large extent on the way that these problems are understood and met. •

"Lap-Welds Theory with Practice"

What Is Cooperative Education?

RALPH W. TYLER and ANNICE L. MILLS

In Report on Cooperative Education

Ralph W. Tyler is Director, Center for Advanced Study in the Behavorial Sciences. Annice L. Mills is Director of Conference and Publications, Thomas Alva Edison Foundation. Reported from Report on Cooperative Education, *a summary of the two-year national study of cooperative education, published by Thomas Alva Edison Foundation (1961), 5–11.*

LAST November, a traveler in this country could have met college students such as these:

A young man working at the Republic Aviation Company, who is an engineering student at the University of Detroit. An editorial assistant at South-Western Publishing Company who is a business administration student at the University of Cincinnati. A student of General Motors Institute experimenting in a sound laboratory at the Frigidaire Division of General Motors. A history major at Antioch College taking down news stories in the Associated Press office in Washington.

All were enrolled college students working for degrees. They were not then attending classes but reporting for work as any other employe, and earning full wages while meeting a degree requirement. All are on a "cooperative education" program. They must build up a satisfactory work record, as well as pass their courses, in order to graduate.

Cooperative education originated in 1906 from an idea by Dean Herman Schneider of the College of Engineering at the University of Cincinnati. His plan was simple, being based on a belief that education would be richer and more meaningful if college students could spend a portion of time working, promptly applying knowledge and theory from school to practical work situations. Dean Schneider called his plan "cooperative education" because it depends on the cooperation of industry.

Charles F. Kettering, director of research for General Motors for many years, was a close friend of Dean Schneider and a friend to his plan. Kettering helped establish the General Motors Institute as a cooperative school, and employed cooperative students at General Motors and in his own laboratories. In 1957 Kettering wrote, "What gives cooperative education its strength is that it lap-welds theory from the classroom with practice on the job. It creates a weld that is much stronger than the butt-welding of a college degree followed by employment, the two touching at only one line of contact."

Dean Schneider started with a group of 27 engineering students, who spent two weeks in class then two weeks at work. Other educational institutions saw the potential of the program, and it was introduced at Northeastern University in 1909, at the University of Detroit in 1911, at Drexel Institute of Technology in 1920, and for the first time at a liberal-arts college at Antioch in 1921. Today, some or all students in 63 colleges and universities are on the cooperative plan, majoring in engineering, business administration, the liberal arts, and other fields.

Cooperative-education programs can include all or some of the students. At some institutions, every enrolled student must participate in the work periods. Frequently, the program is offered in some, but not all, departments. At other institutions it may be a student-option plan or an honors program for which a student must be selected. Usually the students must spend one or two full years of course study before starting a cooperative job, but in some cases even first-year students start the alternation of work and study.

The question is often asked whether students have difficulty in shifting attention back and forth from study to work. The Study committee found that neither faculty nor students think this a problem. Nor do the students lose out on extracurricular activities. Three members of the 1959 University of Detroit varsity football team were cooperative engineering students.

What is the aim of the students in spacing out their studies with jobs, and why do college and universities offer this program? The plan offers definite educational advantages:

By coordinating work experience and campus program, theory and practice are more integrated and students find greater meaning in their studies.

Coordinating work and study increases student motivation. Students see connections between the jobs they hold and what they learn on campus.

Work experience contributes to a greater sense of responsibility for the students' own efforts, greater dependence on their own judgments, and a corresponding development of maturity.

Work experience involves students with co-workers from a variety of backgrounds. Because success in these jobs requires constructive relationships with colleagues, most cooperative-education students develop greater understanding of other people and greater skills in human relations.

Cooperative education helps markedly to orient students to the world of work. It is a realistic "career-tryout" at a time when a final decision need not be made, permitting a change in academic and vocational plans with the advantage of having experience in the work world. •

How Shall We Evaluate It?

Airborne Television and the Technology of Education

ROBERT W. KILBOURN

In Audiovisual Communication Review

THE Midwest Program on Airborne Television Instruction (MPATI) may be considered as a case study in the application of technology to educational processes. The MPATI telecasts year-long course sequences for use at the elementary, secondary, and college levels. The telecasts are made from aircraft TV stations flying over Indiana with a six-state reception area, including parts of Illinois, Indiana, Kentucky, Michigan, Ohio, and Wisconsin. There is a potential audience of 5 million students in 13,000 schools.

The program proposals, in effect, are inventions of human-machine systems designed to deal with certain realms of educational problems. The disturbing effects of the program on the profession have been experienced before and will be experienced again whenever innovations are introduced.

The MPATI airborne television project has been underway for several months, telecasting programs to schools, and it is appropriate now to examine some of the issues of programing, certain economic items, and ideas that relate to the development of technological systems for education.

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The full schedule of telecasts, now being shown, include 28 courses on a 40-hour weekly schedule: elementary school, 16½ hours; secondary, 16½ hours; college, 7 hours. Most of these courses are presented within the framework of a teacher-on-screen lecture and demonstration.

This lecture-demonstration format provides us with the first question concerning the relationship of the profession to the program. What is expected of the classroom teacher using the programs? Clearly, he must follow the lead of the television teacher if the programs are to achieve the desired effect. In one sense, the classroom teacher is relieved of some burdens of transmitting information. In another, he may feel compelled to go beyond the television teacher with more complex presentations of information. The problems of individual differences, discipline, and the social structure of the learning environment remain for the classroom teacher.

To assert that the beginning MPATI programs do not adequately encourage significant learning by individuals turns the problem back to the profession for reconsideration. There is in current classroom practices a high frequency of just the lecture-demonstration form of presentation which MPATI transmits. This leads us back to a concern for the adequacy of our prevailing practice.

Neither MPATI programing nor conventional classroom practice appears supported by an adequate conception of the role of individual learners. We seldom recognize that individuals select from the experience they encounter just what they will learn. Equating "what is presented" with "what is learned" is not an assumption unique to television. Too often we view students as "note-takers" and information-feedback mechanisms.

We seem to be deep in the mire of dealing with individual learning framed as a problem of controlling masses of individuals. This dilemma follows logically from the attempted social revolution of education for everyone. We have not, however, achieved the concomitant revolution within educational institutions that would build schools for everyone.

Education for everyone may not be realized until we design the technological tools that will help us produce it. Today, we have a rapidly developing technology of information-handling that may be used to multiply the efforts of our teachers.

With some fear, we think of the ways in which technology of information-handling has already bypassed the schools in an effort to achieve direct contact with individuals. Commercial television in recent years has continued the high art of documentary programing to an extent that these programs are often a better source of information than any but the most scholarly realms within schools. Technological effects are also evident when children enter kindergarten after several years of television viewing.

ZERO EQUALS ZERO

It is important that the profession ask the Midwest Airborne Program to help it move toward developing systems of educational technology. It will be of no help if the MPATI program of evaluation only compares transmission efficiencies of conventional teaching and MPATI teaching. The lecture-demonstration is probably inadequate whether on television or by classroom teachers. We may reason that zero equals zero without regard for the medium.

The lecture-demonstration format usually transmits ready-made generalizations to students, with effectiveness measured by student accuracy in feeding back on achievement tests answers they have been given previously. Can we not develop a framework which will give students the raw material to encourage individual discovery and development of generalizations?

MPATI programing appears to mirror one of the least effective of our present practices rather than the best we can achieve. Does this mean that our new educational technology will mass produce the commonplace and mediocre? Will the profession fumble the opportunity to produce excellence?

A real danger of MPATI programing, and all educational television programing, may be a premature hardening of conceptions of the medium. We have seen this in the conception of the instructional film as a "textbook with sound and pictures." This rigidity appears also in textbooks which have most of the life and controversy filtered out.

One viewpoint maintains that television for education has limitations of both an economic and technical nature. Our present operations are not close to either limitation. Consider the possibilities if we think of educational television as a medium to communicate directly with students in their homes rather than in school. Could the profession create programs of learning that would compete successfully for the attention of the noncaptive student audience? Could we face the prospect that educational television may not be a classroom medium except in an economy of scarcity, or in the early stages of development?

Of several issues relating to the economies of the television medium and the professional quality of programing, one is an old story in audiovisual educations: too much money spent for technical facilities and too little for development of programing. Motion picture projectors have long gathered dust in school closets because budgets ruled out purchase or rental of films.

In television, tremendous sums have been spent for videotape facilities that are not significant improvements over live programing. We still have with us an assumption that the *medium* is "magic" by itself without regard for the quality of program it transmits. The medium itself is nothing. The qualities of potential learning are determined by the decisions of men —both technical and professional men.

According to financial estimates, the total cost of all aspects of MPATI operation will amount to $7,750,000 for last summer's testing period and operation for the 1961-62 school year. If the program is promoted on the basis of economy a complete analysis must include an evaluation of quality of learning. The measurement of quality of learning is essential to developing a much needed theory of educational productivity. Even if the economic evaluation of MPATI shows a great saving in money and human effort, we ought not to feel satisfied unless the quality of learning encouraged is worthwhile. •

Mathematics in the Secondary School

THEODORE E. KELLOGG and DONOVAN A. JOHNSON

In Review of Educational Research

DURING the years 1957-1960, a time of ferment in mathematics education, a variety of experiments with new curriculums were conducted at local, state, and national levels. In designing and implementing new curriculums and new approaches, it is vital that results from research be considered. The following will be concerned with describing some of the research projects related to experimental curriculums and the current status of teaching in secondary-school mathematics.

A survey by Luther Shetler examined the aims, curriculum, methods, and evaluation in mathematics teaching to determine how closely they agreed with research results and proposals. Disagreement between expert opinion and practices in classroom methods and evaluation was revealed. It was found that the teachers consistently following recommended practices are those who spend most of the school day teaching mathematics and those who have professional assistance in teaching.

In a related study, Clarence Diebel considered the influence of the evaluative criterions of the cooperative study of secondary schools in 57 Oregon schools. This study indicated that the recommendations are sporadically implemented.

One way to study the mathematics curriculum is to analyze textbooks. An analysis of 627 secondary mathematics texts by Joseph Izzo to determine trends in the use of graphical material revealed increased attention to graphing, especially in connection with locus and analytic geometry in plane geometry texts.

Similarly, Nageswari Rajaratnam studied 10 elementary algebra texts to relate the development of the concepts of variable, function, equation, and equality with the work of mathematicians and logicians. She observed new ideas mixed with outworn and erroneous ideas and terminology.

A method of evaluating curriculum effectiveness is to consider its contribution to success in college. By this approach, Frances Knights analyzed a test given to

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Reported from Review of Educational Research, *XXXI (June 1961), 272–88.*

entering college freshmen to determine their preparation for analytic geometry. Using these scores as predictors of success in analytic geometry, Knights showed that students need more skill in problem solving, more experience in applying learning, and more understanding of definitions, relationships, and symbols to be successful in analytic geometry.

EVALUATING CONTENT

Since a variety of new content is being brought into the mathematics curriculum, the contributions of both the new and the traditional topics need to be evaluated. We have little evidence with which to defend either the old or the new.

One curriculum recommendation frequently made is that courses should be functional. Results of an investigation by William Bush failed to support the functional approach. The investigation revealed that students with two years of formal mathematics were superior in every category tested to students experiencing the functional approach.

The success of curriculum proposals depends greatly on the attitudes of teachers toward the new ideas and their competence to teach them. Daniel Spillane studied the attitudes of Pennsylvania mathematics teachers toward the inclusion of analytic geometry, calculus, and statistics in the high-school program, and considered the teachers' competence to teach these subjects. He found that teachers favor these topics in high school and feel generally competent to teach these subjects. Younger teachers and those who felt competent to teach the subjects were more favorably inclined toward them.

The number of experimental mathematics curriculums continues to grow, and projects that have been underway for some time continue experimentation. No experimental project has reported data adequate to permit evaluation of its effectiveness.

To anyone facing the difficult task of evaluating a new curriculum, a report by J. Dan Hull and others on a conference sponsored by the American Association for the Advancement of Science, the American Association of School Administrators, and the Council of Chief State School Officers will be useful. Purposes of the conference were to develop guidelines for program appraisal and direction in the teaching of mathematics and the sciences and to evaluate proposals being made for changes in school programs.

Some experimental studies, although few in number, showed concern for the significance of attitudes, the nature of understanding, and the formation of concepts in mathematics.

The significance of maturity and other variables in relation to an understanding of the limit concept was studied by L. T. Smith. Among 578 students in grades 7 through 12, some classes were given three hours of special instruction in limits, other classes equated in mental age were not. Findings showed: Experience is important; significant gains in conceptualizing limit occurred at all levels; chronological age is not a related variable; and mental age is positively correlated with limits test scores.

PROGRAMS FOR GIFTED

Although much space recently has been devoted to special programs for the gifted, few studies evaluated their effectiveness. But a study of an enrichment program by Roy Gilbert Long showed that both talented and nontalented in an enrichment program surpassed the control group in both achievement and attitude. This was a carefully designed study that induces confidence in the implications concerning the contributions of an enrichment program.

David Wells reported an informal experiment with a modified curriculum for capable students in one eighth-grade algebra class. Achievement of the high-ability eighth-graders was comparable to that of ninth-graders completing a similar course. The former achieved as well or better than the ninth grade control group.

Various programs for gifted students have been advocated. Donald Devine described a seminar to provide an accelerated program for gifted senior-high-school students, and Florence Elder described a seminar to provide an enriched program for gifted junior-high students. Summer seminars supported by National Science Foundation funds with emphasis on topics from contemporary mathematics were described by Eugene Nichols, Ross Nielson and Walter Gohman, and Milton Ferguson. Ferguson's findings from a state-wide summer program at eight centers in Tennessee indicated significant gains in subject-matter achievement by the experimental group, but no significant gains in ability to use knowledge for problem solving.

Even though interest in and support for educational television have increased in recent years, relatively few efforts have been made to use television to teach mathematics. Extensive experimentation at different levels with valid evaluation of all objectives needs to be made before we can know the extent of television's contribution.

In regard to facilities and equipment for the mathematics classroom, the National Defense Education Act has provided funds for improved facilities and equipment, and several surveys have been conducted to determine needs. A U.S. Office of Education study by E. S. Oburn and others found that classroom facilities are usually inadequate and that fewer than half the mathematics teachers surveyed use commercial or improvised equipment, even though models were rated the most valuable teaching aid.

Another government survey by W. Edgar Martin reported requirements and recommendations of state departments of education in regard to facilities, equipment, and instructional material for teaching science and mathematics at the elementary-school and secondary-school levels.

Financial support by governmental agencies and foundations for research in mathematics should result in improvement in quality and quantity of research in mathematics education. An illustration of this support in action is the Office of Education report of a conference on "Psychological Problems and Research Methods in Mathematics Training." This conference brought together mathematicians and psychologists to discuss approaches to research in mathematics education. The report provides a guide for investigation. It includes a review of completed research, formulation of problems in the learning of mathematics which should be investigated, and research designs and methods appropriate to the conduct of such studies.

The studies made since 1957 point to these general conclusions: There is urgent need for more well-trained secondary mathematics teachers. Substantial improvement is needed in teaching facilities. Although much curriculum development has occurred, there is need for coordination, better definition of goals, concepts and understandings, and adequate evaluative research. Some evidence suggests that we have in many instances expected too little from our students; however, the precise implications for mathematics and the school as a whole are still a moot point. Much curriculum study has been fragmented with emphasis on one level or another rather than concentration on the total program. Opportunities for the talented student have been greatly extended, but again without adequate evaluation and without attention to the total situation.

Research should make maximum use of the techniques, instruments, and conclusions of previous studies of related problems. Donovan A. Johnson's study, "Implications of Research in the Psychology of Learning for Science and Mathematics Teaching," is indicative of the contributions to be found outside the field of mathematics.

In view of the increased cost and complexity of a well-designed study, Kenneth E. Brown offers the following suggestions: Key problems should be identified by groups of teachers and schools. Problems should be investigated by a team approach rather than by individuals. Results should be published and distributed to avoid duplication and to suggest deeper studies. These are basic needs. •

An eighth-grade mathematics test question was, "What is the due date of a promissory note?" Instead of "date of maturity," one pupil wrote, "date of mortuary"; another, "date of maternity."—Richard Richardson in *NEA Journal.*

Evaluation In Terms of Current Practices

How Well Are We Teaching Reading?

EMMETT ALBERT BETTS

In Elementary English

THERE are at least three sources of information to give an indication of success in teaching reading today. They are: studies comparing reading instruction now with an earlier time, leading to a conclusion that reading is being taught as well now as it was a generation or a century ago; experimental studies and surveys, which reveal major needs and point to means of improving instruction; and classroom observations by scholars with mastery of the cognate disciplines, such as phonetics and perception, which are basic to reading instruction. When these sources of information are disregarded, fanatics, faddists, and zealots recommend one-shot remedies.

The following will discuss the evaluation of reading instruction in terms of current practices regarding individual differences, interests, phonics, and thinking. What is done about the first, providing for individual differences, is the foundation of reading instruction.

From published reports and classroom observations, it appears that more attention is being given in more schools to individual differences in learning abilities and needs than at any time since the introduction of grade-level organization of schools in the early nineteenth century. Despite this, there are still far too many schools in which regimentation—the same textbook prescription for all pupils in a grade—is the order of the day.

Emmett Albert Betts is Research Professor in Education and Lecturer in Psychology in the School of Education, University of Miami, Coral Gables, Florida. Reported from Elementary English, *XXXVIII (October 1961), 377–81.*

On the positive side, more pupils are being taught to read today when they are ready—whether they are in kindergarten, first, or a higher grade. Grade-level dictated thinking is slowly but surely being displaced by the "pursuit of excellence." Equally important, those advising parents to teach their five-year-olds to read are under suspicion by those who have been trapped by this tragic advice.

Furthermore, there is a growing recognition of the limitations of group tests for estimating reading readiness. As a result, more emphasis is on teacher use of informal inventories and individual scales, based on significant researches regarding the development of interests, perceptual skills, and thinking abilities.

Today, too, fewer years are lost for pupils assigned to reading groups on the basis of standardized tests of reading achievement. Fewer superior pupils and low achievers have reading indigestion induced by the misuse of standardized tests that conceal rather than reveal the typical 10-to-12-year range in reading abilities of fifth-grade pupils, for example. There is less of the bland sameness of reading diets resulting from the fact that no standardized test yields either the independent or the instructional reading level of the pupil. For estimating reading levels, more use is being made of systematic informal inventories.

RATIONAL THERAPY

Finally, delusions about regimentation and a three-group plan of instruction are being cured by rational therapy. Today, professionally competent administrators are encouraging teachers to test, or try out, variations of individualized and group reading plans in terms of their different levels of professional competence. However, this is not referred to as *methods;* instead, they are concerned with plans for differentiating instruction —for providing equal learning opportunities for all pupils.

Progress on identification and nurture of individual differences is being made in spite of writers, careless with the truth, asserting that differentiated instruction was "invented to divert attention from poor reading instruction."

With the matter of interests, there is evidence that today the pupils' "right to read" is more heavily insured. There is well-placed emphasis on selfselection of readable and interesting materials and on a balanced diet of non-fiction and fiction by protagonists of both individualized and group instructional plans.

Independent reading is considered a blue-chip investment of the pupil's time in science, history, etc. Pupils are encouraged to evaluate their reading in a spirit of friendly candor with their peers, rather than by preparing a stilted book report for the teacher.

In some classrooms, however, reading interest is still stifled rather than nurtured. It appears that reader interest is raised or muted in any type of reading program, depending on attitude and competence of the teacher. No matter what the plan or method, only competent teachers can make a program effective.

PHONICS

There is so much confusion surrounding the word *phonics* today that many teachers approach this facet of reading instruction with mixed emotions. Happily, there are more and more "heads-up" teachers who know their phonetics (the science of speech sounds). They approach word learning in its perceptual and re-cognition setting, teaching the phonic skills so that they are used automatically in silent reading, thus leaving the pupil's mind free to attend to the thought of what he is reading. That is, they teach phonics as *one* means to fruitful reading rather than as a dead end.

These "heads-up" teachers consider several important factors in perception which give phonics instruction a "forward look.":

Need. Pupil awareness of the need to learn a specific skill; for example, the *kw* sound *qu* in *quiet.*

Grouping and set. Pupil awareness of the *grouping* of sounds of the spoken word as preparation (set) for his identification of the grouping of letters (phonogram) representing those sounds.

Feedbacks: sounds-phonograms. Pupil *feedback* (a circular process) from the examination of the letter groupings of the written word to the sounds of the spoken word; for example, the *application* of phonic skills to the written word during silent reading.

Feedback: meaning. Pupil *feedback* to previous experience so that perception is consummated in meaning; for example, interpreting the meaning of the word in its contextual setting.

Dynamic closure. Pupil's blending of consonant sounds at the beginning or end of syllables, or of two parts of a word to make a whole word; for example, the *t* of *toy* and *r* of *ride* to make the *tr* of *train.*

Insured association. Pupil's saying the vowel sound in a syllable rather than quoting a memorized rule; for example, reproducing the sound of *a* in *cat* or in the first syllable of *satisfy.*

THINKING

As for *thinking* in reading instruction today, considerable evidence indicates a need for more emphasis on teaching pupils how to think in listening and reading situations. In some classrooms, the mere pronunciation of words is accepted as reading. Consequently, pupils are unable to discriminate between facts and opinions, to distinguish between referential and emotive language, to evaluate the relevancy of a statement to a purpose, to organize information in outline form, to draw conclusions from related facts, and so on– that is, to employ those abilities needed to read beyond the lines.

In other classrooms, teachers *plan* to teach pupils how to think. These teachers consider the materials of reading to be concepts, not word forms. They are concerned with the sequence of concept of formation, beginning with organization of the pupil's own personal fund of experience and ending with his own verbalization of that experience. They teach with the attitude that concepts yield vocabulary, not vice versa.

To achieve the goals of reading instruction today, successful teachers today have well-stocked libraries containing a wealth of instructional materials. And they know that there are two ends of the log, but that the heartwood which gives the log strength is the library. •

What Can We Learn From It?

The Special Television Class Assignment

NEIL POSTMAN

In Television and the Teaching of English

FREQUENTLY during the semester a television program of compelling interest will cry out for something more than mere notice in the English classroom. Although it may be inconvenient, a teacher may wish to spend a day or two teaching about it. Accordingly, an assignment to read a story or to write a composition may be changed to the viewing of a special television production.

The "special" assignment does not require extensive preparation and generally results in an informal lesson in which students discuss their reactions as they would a book, movie, or play. While such informality must not be derogated, in an academic context informality sometimes encourages dilettantism or, worse, carelessness. The teacher must guard against these attitudes toward television, just as he does toward other literary forms. One way would be to structure the discussion to maintain informality and at the same time cultivate the habit of disciplined analysis.

If the program is a play, the teacher might ask his students to discuss the plot, theme, characterization, and purpose much as if the students had organized a theater party and returned to school to review their impressions.

Neil Postman is Associate Professor of English Education, New York University, New York City. Reported from Television and the Teaching of English, *a report from the Committee on the Study of Television of the National Council of Teachers of English, published by Appleton-Century-Crofts, Inc., 1961. 82–87.*

If the program is a documentary, say, *CBS Reports' Who Speaks for the South?* the teacher might guide the discussion to the program's point of view. He might ask the students to discuss which people they sympathize with and which they disliked. He might try to have his students articulate the reasons for their feelings. Although this program tried to present different sides of a controversial question fairly, it is important that students realize that the movie or television camera injects a point of view by the very process of selecting one thing for emphasis and another for neglect.

In fact, any documentary of this kind, *Cast the First Stone, The Population Explosion,* or *The Jazz Age,* will very likely motivate the teacher to engage his students in a discussion of objectivity.

It is important that the teacher not expect too much when giving a special television class assignment. Since there is only one or two days for discussion, he must accept the fact that his lesson will be superficial. Yet, superficiality has certain virtues. In this instance, the teacher is demonstrating to his students that the content of television can be as relevant to the classroom as many things from books or the stage. The sources of maturing experiences are not the monopoly of a few forms of communication, and the teacher is giving notice that television programs need to be, and can be, thoughtfully evaluated.

SEARCHING QUESTIONS

As a result of a television class assignment, the students may find themselves asking searching questions of television programs they were not assigned. A student may quite unexpectedly wonder why Beaver in *Leave It to Beaver* manages to solve problems that confound other members of the family, or why Matt Dillon of *Gunsmoke* does not marry Kitty, or why Jim Anderson of *Father Knows Best,* unlike almost everyone else, does not have financial problems. Actually, these are rather sophisticated questions and experienced teachers will not expect them to arise quickly and readily. Nevertheless, the special class assignment has the virtue of relating the serious business of evaluating literature to the seemingly passive business of watching television.

In addition, the special class assignment can be useful as an aid in teaching about things other than television. The medium does have value as a carrier of information and ideas about subjects normally carried in the English curriculum. For example, teachers and students who in 1960 were studying the structure of the English language might have profited from the Bell Telephone presentation of *The Alphabet Conspiracy.* This program, which has been shown several times, is concerned with the science of language and explains in popularized fashion the basic assumptions, methodology, and terminology of linguistics. Don Herbert's *Mr. Wizard,* on one occasion, also dealt with the science of language. If the teacher is willing to make use of such programs, he may ask his students to view one of them in lieu of, or as a supplement to, their regular assignment.

LINGUISTIC INFORMATION

Furthermore, teachers should not overlook the fact that television is in itself a constant and interesting source of linguistic information. Teachers wishing to describe to their students the various dialects of English will find satisfying examples on television—the New England speech of President Kennedy or Henry Cabot Lodge, the Texan drawl of Vice-President Johnson, the midwestern twang of Herb Shriner. Courageous teachers might wish to call attention, for purposes of analysis, to the colorful vocabulary of Dizzy Dean or the quaint but obscure syntax of Casey Stengel.

The point is that, with the exception of face-to-face communication, television is probably the most abundant source of linguistic experience that students have. Whether a teacher is interested in prescribing a particular set of speech patterns or concerned with increasing his students sensitivities to the fascinating varieties of American English, television can be a useful aid.

To introduce a unit on the social and economic utility of standard English, one teacher required his students to view two programs, *Father Knows Best* and *The Life of Riley*. The students were asked to note the differences between the speech patterns of Jim Anderson (played by Robert Young) and Chester Riley (played by William Bendix) and, at the same time, observe corresponding differences in their professions, status, and dress. It was observed during the class discussion that Riley's limited vocabulary frequently frustrated his attempts to communicate with members of a different social class, while Anderson appeared to function with equal effectiveness among all kinds of people.

Another teacher, in introducing a brief unit on "linguistic snobbery" assigned the task of identifying the dialects, especially the "foreign accents," that tend to be sources of humor, or, under certain circumstances, ridicule. Using television as one source, the students discovered that the Spanish-English of Desi Arnaz, the Italian-English of Pat Harrington, Jr., and the Yiddish-English of Mollie Goldberg appeared to be objects of humor in themselves.

A third teacher, hoping to make his students aware of the changing character of language and, at the same time, increase their vocabulary, required his class to note any new words or forms heard on television. One student noted the increasing use of *like* as a conjunction, another noted the use of *science* as a verb, a third listed as "new" words: *perambulate, cogitate, genuflect,* and *insipid.*

NOTE OF CAUTION

One note of caution is in order. Teachers who have tried the special television assignment have found that they cannot insist that all students view the same program, or, for that matter, any program at all. Television viewing, unlike reading, tends to be a family activity and a parent wishing to see and hear Lawrence Welk may not accept the Sacco-Vanzetti story as an adequate substitute. The teacher must remember that television is so much a part of the warp and woof of the evening hours that a seemingly innocent assignment may tear the fabric of family peace. "Team-watching" at one student's home may be an alternative, or in individual cases a reading assignment in a related area may be a solution. •

Some Suggestions for

Evaluation of Guidance Programs through Studies of Students

FRANK E. WELLMAN and DON D. TWIFORD

In Guidance Counseling and Testing Program Evaluation

Frank E. Wellman and Don D. Twiford are Specialists, Program Organization, U.S. Office of Education, Washington, D.C. Reported from Guidance Counseling and Testing Program Evaluation, *published by the U.S. Office of Education, 1961, 26–30.*

GUIDANCE programs exist to serve students, either directly or indirectly. Primary objectives all relate to student behavior and development, which means that the only true measure of guidance-program value must be in terms of what happens to students.

There are difficulties in conducting evaluative studies where student outcomes are the basic criterions. The following suggestions do not represent elaborate research designs, but rather an attempt to present some methods for the collection of basic data and a few possibilities for the development of more elaborate data collection and research projects. Practically all state and local school systems should be able to carry out some of these suggestions, and those having already collected much basic data should be ready to launch comprehensive and well-controlled experimental studies.

Ideally, there should be comprehensive research projects initiated each year in each state to evaluate certain aspects of guidance programs. Then, with cooperation and coordination among states, appropriate evaluation of effectiveness could be accomplished efficiently and without undue strain on any one state or school system.

It has been suggested that achievement of some of the objectives of NDEA, V-A programs can be evaluated by obtaining answers to certain questions which reflect desired outcomes. The following questions might serve as basic criterions for determining what data should be collected to relate the extent of outcomes to program activities. They may also prove valuable in forming hypotheses to be tested in experimental studies of guidance programs and specific program activities.

1. Do students develop greater understanding of their abilities, aptitudes, and interests?
2. Are students, and their parents, fully aware of opportunities and requirements for education and careers?
3. Do students select courses,

and achieve in them, in line with their abilities, aptitudes, interests?

4. Do students able to do so finish secondary school?

5. Do students capable of doing so continue education beyond secondary school?

6. Are those students continuing education beyond the secondary school successful in their educational pursuits?

7. Are significant numbers of the very able students getting more extensive background in mathematics, science, and foreign languages?

The data which may be collected in the study of student outcomes may be classified as follows: (1) data collected uniformly statewide or systemwide for a specified segment of the student population, (2) data collected uniformly for a sample of a specified segment of the student population, and (3) comprehensive case data of a specialized nature for predictive and experimental research.

Suggested evaluative criterions for which statewide data may be feasible include: (1) persistence in school, (2) enrolment in courses in school, (3) planning for post-high-school activities, and (4) post-high-school activities. State and local systems may want to develop other areas of data collection which will better meet local evaluative needs.

Two variables, sex and scholastic aptitude, are proven to be related to variance in the above criterions. They are relatively easy to study and are suggested as two fundamental classifications in the collection of statewide data. Scholastic aptitude grouping by quarters is suggested, using the results of the most recently administered scholastic aptitude test and classifying on a national norm basis. In states where all ninth-graders receive this type of test, it is desirable to use ninth-grade grouping throughout, thus minimizing the selective factor created by those who leave school early and students repeating grades.

In regard to sampled data, any complete list of studies for which this type of data is appropriate would necessarily be lengthy. The following list is only suggestive. The term "sampling" is used here to include studies by: selected states or areas, selected pupil populations, selected school units, and other groupings which may lend themselves to sampling studies.

Some studies which may be conducted by utilizing data collected on a "sampling" basis include those suggested below. All studies listed were suggested by state guidance personnel. State and local systems are urged to examine their particular needs for comprehensive research and to design studies to meet those needs, rather than to undertake studies which are suggested but which may not be the most appropriate approach to the local program.

Periodic follow-up studies of high-school graduates to maintain continuous information regarding higher education, employment, marriage, etc., for at least five years after graduation.

Studies of student high-school

and post-high-school achievement, including such details as differential course achievement and persistence in a particular curriculum with controls on such variables as abilities, aptitudes, interests, and other characteristics about which data can be obtained.

Studies of drop-outs, both high school and college, with particular attention to reasons for and characteristics of drop-outs, which can be used to identify potential drop-outs.

Studies of factors which may influence student behavior and development, such as: motivation, particularly as it relates to school achievement and educational and career choices; influence of socio-economic factors; influence of school size and curricular offerings; and influence of parents and teachers.

Studies in the prediction of curriculum and career choices and subsequent persistence and success.

Studies in the prediction of performance in post-high-school activities from data available during high-school attendance.

Studies of the influence of the introduction of new guidance programs and improvement of existing programs under NDEA, V-A.

The individual case study does not lend itself readily to statistical analysis in evaluating guidance programs; however, case data on small groups of students with certain common characteristics can be treated statistically. The particular value of case data is in the study and improvement of guidance techniques which are indirectly related to evaluation. Also, this approach may provide valuable material for furthering effective public relations. The following are some suggested uses for case-study techniques and data:

Determining the relationship between counselor activity and student choice and decision.

"Humanizing the guidance story," such as developing the human interest aspects of a particularly successful case.

Providing illustrative materials for inservice education activities or techniques.

Providing the basis for long-term appraisal.

Developing counselor insight and evaluating student insight.

The case-study method in guidance consists essentially of the application of counseling techniques to individuals and subsequent observations in behavior. The following is a suggested list of problem types which may be studied by this approach:

Potential dropouts and underachievers; exceptionally able students in all areas, and the student with multiple potentialities; economically deprived students; students with low-level motivation; social rejects and ethnic groups; and the mentally and physically handicapped.

Careful analysis of case data on problems such as those listed above may provide sufficient information for the formulation of hypotheses which can be tested by comprehensive and well-controlled experimental studies. In the final analysis, good experimental research is the most promising approach to determining effectiveness of program activities and to subsequent program improvement. •

★ With Education in Washington ★

The Education Digest Washington Bureau

CARE at Christmas.—A heartwarming Christmas report from CARE tells how American farmers are helping to raise a bumper crop of school children across the world. Nearly 11 million undernourished children are sharing in school-feeding programs based on CARE distributions of U.S. farm surpluses. In 18 countries from Panama to Pakistan, the food gifts boost attendance and turn listless youngsters into eager scholars, according to glowing reports sent to CARE by school administrators and teachers.

In Bogota, Colombia, for example, public-school enrolment soared from 70,000 to 90,000, and classes had to go on split-shifts in the first year the free-lunch program started. In Libya, the daily food is credited with bringing an annual 25 percent increase in elementary-school enrolment. In the Philippines, farm kids who used to stay home to help their parents during the harvests have been at their desks every day; they don't want to miss their milk. And in Ceylon, when a mix-up delayed the baking of flour into buns, 60 school principals sent telegrams of protest to the Ministry of Education.

The CARE programs have a significance far beyond the immediate benefits for the youngsters who are fed. Lack of education is a root cause of the poverty suffered by most of the people in underdeveloped lands, and governments are expanding public education facilities to an unprecedented degree.

But the long years of hopelessness have made many parents apathetic about sending their children to school. Far more frequently, boys and girls come to class so hungry that they cannot concentrate. Now, with the U.S. food attracting new students and providing nourishment during the day, educators see a turning point in the fight against ignorance.

Foods served to the children depend on the commodities made available for foreign relief from America's farm stockpiles. Currently, the servings range from a midmorning glass of milk, or milk and a roll, to a bowl of hot corn meal mush, plus milk and a roll for lunch.

The makings come from milk powder, enriched flour, and corn meal given to the nonprofit international relief agency from U.S. Department of Agriculture stockpiles. To finance their distribution abroad, CARE combines Partnership Programs, whereby host governments pay the costs, and the CARE Food Crusade, which appeals to Americans for contributions of $1 per package, to reach needy families or institutions.

Under both plans, all supplies are delivered as "A gift from the people of the United States of

America." To bring a personal greeting of friendship, the Food Crusade units also bear the name and address of the contributor. Wherever possible, this food-assist to learning is made even more effective by CARE deliveries of educational tools – writing supplies, new books, classroom equipment.

So valuable have the school plans proved in the nine years since they were initiated as part of CARE's food relief that local governments, wherever possible, are now helping to feed their own children. The vast majority of the nearly 11 million boys and girls who are benefiting in the current school term are covered by Partnership Programs in Ceylon, Colombia, Egypt, Guatemala, Honduras, Korea, Libya, Mexico, Panama, the Philippines, and Poland. The dollars donated through CARE offices in the U.S. are the sole support of the school feedings in Afghanistan, Haiti, Hong Kong, India, Israel, Pakistan, and Turkey.

Approximately 750,000 Food Crusade packages are going to the schools, or almost 18 percent of the 4.5 million $1 CARE packages in the current year. A typical Food Crusade unit prepared for schools consists of 27 lbs. of powdered milk, enough to make 432 half-pints.

New Approach?–Rep. Cleveland M. Bailey (D-W.Va.), a staunch supporter of federal aid, has proposed "a new approach to achieve our goal: stimulation and encouragement of education." His proposal is to appropriate to each state federal funds amounting to 2 percent of the state's total expenditures for public elementary and secondary education.

In addition, states with annual per capita incomes below the national average would have their grants increased by the percentage by which the state lags the national average. Under this formula, states with greater educational expenditures would receive larger federal grants, and reductions in school spending would be penalized by equivalent reductions in the federal grant.

HEW Secretary Abraham A. Ribicoff has commended the Bailey proposal. It was unanimously approved by the legislative committee of the Council of Chief State School Officers, but full membership of the Council withheld endorsement at its November meeting "until we know more of the specifics."

Rep. Bailey's proposal will be introduced as a bill next year, if public and Congressional reaction is favorable. A former teacher, principal, and superintendent in West Virginia schools, Rep. Bailey is the second-ranking member of the majority party on the House Education and Labor Committee.

Adult Education.–"Adult Education in the Public Schools," the first joint policy statement ever prepared in this area of education, was released at the ninth annual convention of the National Association of Public School Adult Educators (NAPSAE) in Washington last month. The statement was developed by the American Association of School Administrators, the Council of Chief State School Officers, the National Congress of Parents and Teachers, and NAPSAE.

The four groups agree that public funds should pay for adult and community education and that adult education is a logical part of public-school education programs because public schools are available to adult students, are not used at night, and have the staff and facilities with which to teach adults. They are also in accord in thinking that public-school education programs for adults should be under the direct control of local boards of education and that adult programs should not be limited to vocational, remedial, or academic subjects.

The statement concludes by stating: "The extent to which various sources of revenue are used for public-school adult education should be the decision of each state and local board of education. Provision for an adequate adult education program should be included, either independently or in cooperation with other districts, in every board of education budget."

Educational Broadcasting.—The Federal Communications Commission has established an Educational Broadcasting Branch in its Broadcast Bureau. The new branch, part of a Research and Education Division which absorbs the former Economics Division. is responsible for compiling information, conducting studies, and making recommendations relating to educational broadcast services, and serving as a clearinghouse of information for, and liaison with, private and government groups.

Hyman H. Goldin, who was chief of the former Broadcast Economics Division, has been named head of the augmented division. The chief of the Educational Broadcasting Branch is to be named later.

Vocational Education.—President Kennedy has appointed a 26-member panel of citizens drawn from education, government, industry, labor, and agriculture to review and evaluate the national vocational-education acts. The panel's work is expected to be comparable in historical significance with that of similar bodies previously appointed by Presidents Wilson, Hoover, and Roosevelt.

Chairman of the President's panel is Benjamin C. Willis, superintendent of schools, Chicago, Illinois. Its membership includes nine vocational educators. The USOE's Division of Vocational Education is supplying staff services to the panel through a special five-man staff. The report and recommendations of the panel are to be placed before Congress when it convenes in January 1963. •

• Educational News •

CHANGES IN SUPERTENDENCIES:

Teaneck, N.J.: **Harvey B. Scribner,** formerly of Dedham, Mass., has succeeded **Theos L. Anderson,** now superintendent at Cleveland Heights, Ohio.

Peabody, Mass.: **J. Henry Higgins,** formerly assistant superintendent, has been named superintendent.

Belleville, N.J.: **Frank M. Durkee,** formerly assistant superintendent, has succeeded to the superintendency.

Mansfield, Ohio: **Woodrow K. Zinser,** formerly of Mentor, Ohio, has succeeded **John S. Rinehart,** now at Bethpage, Long Island, N.Y.

Steubenville, Ohio: **Charles M. Patterson,** formerly of Bay Village, Ohio, is successor to **C. C. Roberson,** now professor of secondary education at Ohio Northern University, Ada.

Hartford, Conn.: **Robert H. Black** has announced his retirement in April.

Allentown, Pa.: **John S. Cartwright** has announced he will retire at the end of this school term. He will become professor of education at Lehigh University, Bethlehem, Pa.

COLLEGE PRESIDENTS:

Rice University, Houston, Tex.: **Carey Croneis** has been appointed chancellor and **Kenneth S. Pitzer** has been named president.

West Virginia University, Morgantown: **Paul A. Miller,** provost at Michigan State University, East Lansing, has been named successor to **Elvis J. Stahr, Jr.,** now Secretary of the Army.

Ohio Wesleyan University, Delaware: **David A. Lockmiller** has resigned to be executive director, National Home Study Council, Washington, D.C.

Bryant College, Providence, R.I.: **E. Gardner Jacobs,** vice-president, has been named successor to his father, **Henry L. Jacobs,** who was president for 53 years.

Nebraska State Teachers College, Kearney: **Milton Hassel,** academic dean, Mankato State College, Minn., has been appointed president.

Monmouth College, West Long Branch, N.J.: **Edward G. Schlaefer,** president 29 years, has retired.

TEACHER-TRAINING INSTITUTIONS:

Ball State Teachers College, Muncie, Ind.: **Earl Johnson** has been named dean of the education division.

Harvard University, Cambridge, Mass.: **Roderick F. McPhee,** formerly assistant secretary of the American Association of School Administrators, is now assistant professor of education in the graduate school of education.

State University of Iowa, Iowa City: **Howard R. Jones,** professor of eucational administration, University of Michigan, Ann Arbor, has been appointed dean of the college of education, succeeding **E. T. Peterson.**

Furman University, Greenville, S.C.: **Charles K. Franzen,** formerly of Martinsville, Va., is now assistant professor of education.

OTHER CHANGES AND APPOINTMENTS:

Patrick M. Malin, executive director, American Civil Liberties Union, has been appointed president of the American-operated Robert College of Istanbul, Turkey, effective April 1.

Wilmer V. Bell, Baltimore, Md., is president of the National Association of Public School Adult Educators for 1961. **Robert F. Shenz,** director of Westchester Adult School, Los Angeles, Calif., is president-elect.

RECENT DEATHS:

Wendell Wright, former dean of the school of education, Indiana University, Bloomington, at the age of 68.

Franklin Dunham, chief of radio and television services, U.S. Office of Education, since 1945. He was 69.

Study of Communism

COMMUNISM is becoming respectable—at least as a high-school course of study. Until recently the climate of the times was against such instruction.

For instance, it was less than four years ago that the American Legion reversed its long-standing policy against teaching anything about communism in the public schools. Now the Legion is working with the National Education Association on a program of study about communism that may be offered to public schools as a model course. There still are, however, hard pockets of resistance to the idea.

Fred Hechinger, education editor of *The New York Times*, recently queried all 50 state departments of education on the growing movement toward high-school courses on communism. The replies showed 13 which kept hands off local curriculums, nine states which have or are preparing special units on communism, and 12 which prescribe teaching about communism not as a separate unit but as part of social studies or history.

In Florida, under a new law passed last May, all high schools must, by September 1962, have a 30-hour course on Americanism vs. Communism. And the Louisiana Legislature this year voted $30,000 annually for seminars for high-school students on the tactics and strategy of communism.

In California, facts about communism will be taught in the high schools next year through a course being developed by the state department of education. Decision on whether to teach the course will be up to the local schools.

Selfteaching in Reading

The Carnegie Corporation of New York has announced a grant of $70,000 to the Center for Program Instruction to develop selfteaching textbooks for junior-high-school students to help them improve their reading skills.

The project will be conducted during the next two years by the center in cooperation with the New York City school system. Three teachers of reading will be on leave from the city schools to work at the Center on selfinstructional materials for students in grades 7 through 9, which will be tested in 48 junior-high schools in the city.

Last spring the Center and the New York City Junior-High-School Division, with a planning grant from Carnegie, tried programed texts with a small number of poor readers in the seventh grade. They found that students improved their reading ability after using the experimental texts for periods as short as one-half hour.

Disturbed Children

A new approach to the problem of helping emotionally disturbed or potentially delinquent children has been launched at George Peabody College for Teachers, Nashville, Tenn.

Thirteen selected men and women have begun nine months of training for work as teacher-counselors in special residential schools to be established in Louisville and Nashville.

The program is part of an eight-year demonstration project backed by a $1,896,000 grant from the National Institute of Mental Health. Its purpose is to help alleviate the shortage of qualified personnel in mental health and to provide additional facilities for disturbed children.

MPATI Adds Courses

THE Midwest Program on Airborne Television Instruction (MPATI) will add four courses when the "flying classroom" begins its second semester of lesson telecasts on January 29.

The new courses include American literature for senior-high school, Spanish for junior-high school, social studies for grades 3 and 4, and primary science for kindergarten through second grade.

By adding the four courses, MPATI will offer a total of 20 courses to be telecast each week. The four-day-per week telecast schedule will be maintained during the second semester.

New Math Tests

THE Educational Testing Service, Princeton, N.J., has announced that 11 new cooperative math tests, which reflect the significant changes taking place in mathematics instruction will soon be available.

The new tests for junior- and senior-high-school students cover arithmetic, algebra, geometry, and trigonometry. Final forms of these tests will be administered in a representative sample of schools early in May 1962 to establish differentiated national norms.

DATES OF THE MONTH:

Dec. 3-8, American Vocational Association, Kansas City, Mo.

Dec. 27-29, Modern Language Association of America, Cincinnati, Ohio.

Dec. 27-29, National Business Teachers Association, St. Louis, Mo.

DATES OF THE COMING MONTHS:

Feb. 14-17, American Association of Colleges for Teacher Education, Chicago, Ill.

Feb. 17-21, American Association of School Administrators, Atlantic City, N.J.

Feb. 24-28, National Association of Secondary-School Principals, St. Louis, Mo.

Mar. 4-7, Association for Higher Education, Chicago, Ill.

Mar. 4-8, Association for Supervision and Curriculum Development, Las Vegas, Nev.

Mar. 24-28, Department of Elementary School Principals, NEA, Detroit, Mich.

Mar. 25-29, National Science Teachers Association, San Jose, Calif.

Mar. 25-30, Department of Audio-Visual Instruction, NEA, Kansas City, Mo.

April 6-10, American Association for Health, Physical Education, and Recreation, Cincinnati, Ohio.

April 8-14, National Library Week.

April 12-14, National School Boards Association, St. Louis, Mo.

April 15-18, National Council of Teachers of Mathematics, San Francisco, Calif.

April 16-19, American Personnel and Guidance Association, Chicago, Ill.

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New Educational Materials

Television in the Lives of Our Children. Wilbur Schramm, Jack Lyle, and Edwin B. Parker. Stanford, Calif.: Stanford University Press, 1961. Pp. 324. $6.00.

"No informed person can say simply that television is bad or that it is good for children."

That is the introductory statement in this report on the first major study on the North American continent of the complicated way television operates in the lives of children.

Among other items, this three-year study of 6,000 children and 2,300 parents, teachers, and school officials shows that the average North American child, from ages 3 to 16, spends one-sixth of his waking hours at television—as much as he spends in school and more than is devoted to any other activity except sleep and play.

The book presents the basic facts of television use, viewing conditions, kinds of programs, etc., and examines the chief variables—intelligence, social backgrounds, home and peer-group relationships, etc. which make it possible to predict generally what use children will make of television.

One interesting finding is that children in a town without television revealed a one-year lag in vocabulary when entering school than did children in a town with television. Interesting, too, that the study team was forced to move its operation to Canada to find a town without television.

Oswego, Fountainhead of Teacher Education. Dorothy Rogers. New York: Appleton-Century-Crofts, Inc., 1961. Pp. vii + 305. $5.00.

This is the history of the College of Education at Oswego, N.Y., an institution which played an important role in teacher education. It initiated the first three great movements in American education: Pestalozzianism, Herbartianism, and progressivism. For two decades it was the leading normal school in this country.

The story is treated by administrations from 1861 to 1960, discussing each in terms of general developments, curriculum, students, and staff.

Because of the wide influence this institution had on other teacher-education institutions, this book is a near-national history of teacher education. There is much descriptive material concerned with staff members and students, detailing the manners, dress, behavior, etc., providing an intimate record of the growth and development of the teaching profession in America. Throughout the book, the author deals with people and issues in an informative and entertaining style.

Education in the Secondary School. Lester D. Crow, Harry E. Ritchie, and Alice Crow. New York: American Book Co., 1961. Pp. x + 424. $5.90.

This book provides a thorough introductory description and study of modern secondary education, emphasizing the functions of the school in relation to the characteristics and educational needs of adolescents, their lower-school background, their post-high-school plans, and the demands of society. Understanding the students, the staff, and the community is stressed throughout the book.

The wide range of topics includes: the democratic ideals and objectives of education, details of school finance, school organization, and curriculum sequences and components. There are numerous examples of current secondary-school practices in all types of community and curriculum situations that enrich discussions and give a tone of practical realism to the text.

There is extensive treatment of today's students at the secondary level, including vivid illustrations of basic psychological and educational principles, and up-to-date commentary on contemporary problems.

A Forward Look—The Preparation of School Administrators 1970. Edited by Donald E. Tope. Eugene, Ore.: Bureau of Educational Research, University of Oregon, 1960. Pp. vi + 177.

This publication is made up of the papers presented at a conference held at the University of Oregon in August 1960, at the conclusion of foundation-supported activities and study concerned with improving preparation programs for school administrators. The papers, taken together, give an accurate picture of the major developments in providing a more adequate preparation program for potential administrators.

Among the topics covered are: the place of the social sciences in the education of school administrators, finding potential school administrators, the changing content of the preparation programs for school administrators, special aspects of preparation programs, and preparations for professors of educational administration.

A second section of the publication is devoted to papers on the study of the community as the environment of educational administration.

American Education — Facts, Fancies, & Folklore. Raymond P. Harris. New York: Random House, 1961. Pp. vii + 302. $5.00.

Noting in the preface that the best writing about education is tucked away in the professional literature, where the general public is unlikely to encounter it, the author writes:

"And inevitably, a great many highly dubious statements about our educational process have been placed before the American people as the alleged 'facts'. It is high time to expose these distorted concepts as the folklore they really are."

With strict avoidance of educational jargon, the book discusses the principles and issues that have been the sources of controversy due to distortion and misunderstanding. It is a calm, thoughtful approach, attempting to deal with inaccurate generalizations frequently encountered in the criticisms of our schools. Many of the false images concerning teachers, students, curriculums, etc. are dissolved as the author patiently probes into the roots of the folklore.

Modern School Shop Planning. (Third Edition.) Ann Arbor, Mich.: Prakken Publications, Inc. 1961. Pp. 223. $4.50.

This revised edition provides a comprehensive source of practical information on all aspects, including purchasing, of planning and equipping the school shop.

Edited by Lawrence W. Prakken, editor and publisher of SCHOOL SHOP magazine, the book is designed to aid the initiate as well as those in the field to accomplish excellence in school-shop planning.

There are sections on planning and equipping shops for: general shop, automotive, drafting, electricity and electronics, graphic arts, machine shop, metalworking, woodworking, and technician training. The information is up-to-date, reflecting interests and developments appearing after the second edition in 1957.

There are detailed tool and equipment lists for shops and programs ranging from the kindergarten to post-high-school technical courses. The lists make suggestions as to quality and quantity of tools and equipment according to grade level and class size for all shop areas.

There is a generous use of photographs and illustrations. Over-all, this is a broader and more thorough presentation than earlier editions of this unique and popular planning book.

OTHER MATERIALS RECEIVED:

ELEMENTARY

Teaching and Learning in the Elementary School. Dorothy G. Petersen and Velma D. Hayden. New York: Appleton-Century-Crofts, Inc., 1961. Pp. xv + 538. $6.50.

Helping Children Read. Peggy Brogan and Lorene K. Fox. New York: Holt, Rinehart and Winston, Inc., 1961. Pp. xi + 330. $3.75.

Arithmetic for Teachers. Wilbur H. Dutton and L. J. Adams. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1961. Pp. xiii + 370. $7.95. For inservice instruction and for use in lower division mathematics courses.

The Man Who Walked Around the World. Benjamin Elkin. Chicago: Childrens Press, 1961. Pp. 32. $2.50. A Reading Laboratory book.

This Is Our Land. Josephine Van Dolzen Pease. Chicago: Rand McNally & Company, 1961. Pp. 58. $2.95. A companion book to *This Is the World.*

Abe Lincoln's Hobby. Helen Kay. Chicago: The Reilly & Lee Company, 1961. Pp. 30. $2.75. A story about Lincoln and his love for cats.

Basic Science Handbook K-3. Wilbur L. Beauchamp and Helen J. Challand. Chicago: Scott, Foresman and Company, 1961. Pp. 352. $3.20. A reference book for teachers. Includes experiments, activities, a dictionary of scientific terms, and background information.

SECONDARY

Teen-Age Treasury of Our Science World. Edited by Seon Manley and Gogo Lewis. New York: Funk & Wagnalls, 1961. Pp. xiv + 335. $4.95. Contains essays, poetry, short stories, and selections from biographies and great novels.

Using Latin, Book One. Annabel Horn, John Flagg Gummere, and Margaret M. Forbes. Chicago: Scott, Foresman and Company, 1961. Pp. 448. $4.08.

With Nelson at Trafalgar. C. M. Nelson. Chicago: Reilly & Lee Co.,

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1961. Pp. 206. $2.95. Designed for ages 12 and up.

Education for Social Competence; The Social Studies in the Secondary School. (Revised Edition.) I. James Quillen and Lavone A. Hanna. Chicago: Scott, Foresman and Company, 1961. Pp. 536. $5.50.

Guiding Superior and Talented High School Students. Frank S. Endicott. Chicago: North Central Association of Colleges and Secondary Schools, 1961. Pp. 84. A report of the Project on Guidance and Motivation of Superior and Talented Students.

COLLEGE

New Horizons for the Teaching Profession. National Commission on Teacher Education and Professional Standards, NEA. Washington, D.C.: National Education Association, 1961. Pp. xi + 243. $3, cloth; $2, paperbound. Report of the two-year project directed toward the establishment of new goals and ways of advancing the standards of the teaching profession.

The Role of American Higher Education in Relation to Developing Areas. Edited by Alison Griffith. Washington, D.C.: American Council on Education, 1961. Pp. ix + 70. $2.00.

Memo to a College Faculty Member. Earl J. McGrath. New York: Bureau of Publications, Teachers College, Columbia University, 1961. Pp. ix + 52. $1.75.

Doctoral Study; Fellowships and Capacity of Graduate Schools. John L. Chase. U.S. Office of Education Circular 646. Pp. viii + 65. Available from U.S. Government Printing Office, Washington, D.C. $.45.

GENERAL

The New Media in Education. Edited by Jack V. Edling. Sacramento, Calif.: Sacramento State College Foundation, 1961. Pp. ix + 99. $.50.

The Aeneid. A new translation by Patric Dickinson. New York: New American Library, 1961. Pp. 319. $.75, paperback. A Mentor book.

Toward a Democratic Education. H. Gordon Hullfish. Columbus, Ohio: College of Education, The Ohio State University, 1961. Pp. ix + 90. $2.00.

Lists of Free and Inexpensive Teaching-Learning Materials. Compiled by Hugh B. Wood. Eugene, Ore.: University of Oregon School of Education, 1961. $1.50.

School Custodian Training Manual. (Second Edition.) N. L. George. Houston, Tex.: Bureau of Education Research and Services, University of Houston, 1961. Pp. iv + 195. $2.00.

United States Aircraft Missiles and Spacecraft, 1961. Washington, D.C.: National Aviation Education Council, 1961. Pp. 156. $1.50.

Administering City and County School Programs. Washington, D.C.: American Association for Health, Physical Education, and Recreation, 1961. Pp. 128. $1.50.

The School Psychologist. Mary Alice White and Myron W. Harris. New York: Harper & Brothers, Publishers, 1961. Pp. vii + 431. $6.00.

Television and the Teaching of English. Neil Postman and Committee on the Study of Television of the National Council of Teachers of English. New York: Appleton-Century-Crofts, Inc., 1961. Pp. x + 138. $1.00.

Books in the Schools. Edited by James Cass. New York: American Book Publishers Council, Inc., 1961. Pp. v + 64. $1.00.

AUDIO-VISUALS

Essentials of Russian; Pronounciation, Conversation, and Comprehension. Andre Von Gronicka and Helen Bates-Yakobson. An LP record and manual. Dover Publications, Inc., 180 Varick St., New York 14, N.Y. $4.95.

Understanding Matter and Energy. An 18 minute, 16mm, color film designed for junior-high and senior-high school. Available from International Film Bureau, 332 S. Michigan Ave., Chicago 4, Ill.

STAS Volume Set. A kit designed to show the basic principles of mathematics and physics to the cone, sphere, and cylinder. Available from Models of Industry, Inc., 2100 Fifth St., Berkeley 10, Calif.

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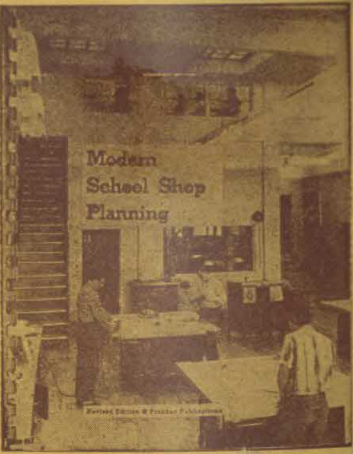

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THE EDUCATION DIGEST

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Volume XXVII *November 1961* **Number 3**

The Education Digest

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MEMBER OF

EDUCATIONAL PRESS ASSOCIATION OF AMERICA

Editorial and Circulation Office: 416 Longshore Drive, Ann Arbor, Michigan.

Advertising Sales Offices:
Ann Arbor, Mich.—416 Longshore Drive, telephone NO 8-7205.
Chicago, Ill.—Didier & Broderick, Inc., 5809 Lincoln Ave., telephone LO 1-5284.
New York 17, N.Y.—Macintyre-Simpson & Woods, 101 Park Ave., telephone LE 2-0020.
Los Angeles 5, Calif.—The Jess M. Laughlin Company, 711 S. Vermont Ave., telephone DU 3-7697.

Published monthly, September through May, by Prakken Publications, Inc., 416 Longshore Drive, Ann Arbor, Michigan. The annual index is included in the May issue. The contents of THE EDUCATION DIGEST are listed in the **Education Index**.

Subscription Rates: $5.00 a year; 2 years, $9.00; 3 years, $12.00; foreign, $5.50 a year. Single copies, 60c.

Second-class mail privileges authorized at Ann Arbor, Michigan, and additional entry authorized at Oxford, Ind. Printed in the United States of America.

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PRAKKEN PUBLICATIONS

THE EDUCATION DIGEST

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Volume XXVII NOVEMBER 1961 Number 3

Our Future Course Is Capricious and Hazardous

Technology and Education

HENRY C. RUARK, JR.

In Phi Delta Kappan

Henry C. Ruark, Jr., is Consultant for Instructional Materials, Oregon State Department of Education. Reported from Phi Delta Kappan, *XLII (June 1961) 387–92.*

PROBABLY at no other time has the American educational system undergone as agonizing a period as that in which we now work; there is a continual clamor for change, a demand for action arising from the simple fact that education has been too slow to meet the changing demands of the modern world.

Three accelerating forces can be identified as major causes of stresses and strains: Rising birth rates, leading to rising enrolments; expanding knowledge in many fields, with its modifying effect on the curriculum; and advancing technology and its influence on the instructional process.

The effects of these forces are inescapable. We can do little about the first. The others demand from us, first, professional effort to understand what is happening, and second, action as educational leaders to make certain that the inevitable impact is made to serve with our long-held educational objectives.

It must be recognized by everyone that advancing technology is forcing better organization everywhere, and education is no exception.

Developments in communication have revealed great potentials for making the instructional process more effective and more efficient; among the many tasks demanded of us today, perhaps none is more urgent than assessing the role of new educational media in improving instruction.

Re-examination of communications developments has greatly extended the meaning of the term "instructional materials." A few decades ago, the "older" medium—print—was supplemented by "audio-visual" materials, such as motion pictures, filmstrips, slides, radio, and disc recording. More recently, "newer" new media—audio and video tapes, language laboratories, educational television, and teaching machines—have revealed still other instructional potentialities.

As these media are used more and more widely, for enrichment, acceleration, and basic instructional communication, two major trends are evident. One is toward mass instruction, utilizing many basic media of communication, with some emphasis on projected still and motion pictures or educational television. The second is toward individualized instruction—learning experiences on a "machine and me" basis—with heavy emphasis, even basic dependence, on automated devices such as the language laboratory and the teaching machine.

It is evident that mass use of the newer instructional media reflects the basic concepts of mass production, the Western World's "newly traditional" answer to the quantity-quality dilemma.

But education deals with the most plastic of materials—the human individual. The same tools of educational technology which permit the mass approach may also, it is now evident, create individualized instruction, in some cases self-instruction—an approach to the time-honored tutorial situation involving one student in close contact with a patient, untiring teacher. The teacher, of course, is the person who programs the material for whatever machine that is used to present it.

Programmed materials presented through automated devices and teaching machines represent a dramatic instruction innovation. And the program is the heart of the machine technique; the machine serving only to control presentation, to prevent cheating, and, in some cases, to record student learning rates and errors. But, whatever the machine being used to make the presentation, the program takes the form of constructed or multiple-choice responses. Rarely are these two combined, since each represents a different viewpoint of the learning process.

TYPES OF PROGRAM

In a multiple-choice program, the learner chooses one of several responses. If correct, he can go on to the next step; if wrong, he must choose another response until discovering the correct choice. In a constructed response, the learner writes or builds his response by manipulation of the machine. He is immediately informed of correctness and can proceed only if his response is accurate.

Proponents of the multiple-choice program insist that some errors are natural and necessary; advocates of the constructed response try for "errorless" learning, with small steps and liberal use of cues to prevent the learner from making errors. The constructed response form of programing is sometimes described as linear, since it moves the student ahead in a carefully guided line which is the same for all learners, except for rate of progress "down the line." Branching off the main line onto a sidetrack and back again is possible with the multiple-choice approach.

At present, there is no definite evidence to support one approach to programing over the other.

MORE THAN AIDS

A significant point often overlooked is that the new media can no longer be regarded merely as *aids* to the teacher. The media can now illustrate, discuss, analyze, present content, form concepts, and build generalizations; they can even systematically prescribe areas for continued student inquiry. These are functions which were the exclusive domain of the teacher. Thus, a reformulation of the role of the teacher is being forced.

Those who advocate a full use of the new media maintain that technology offers the teacher relief from some routine, repetitive presentations and that, since much of the information-dissemination part of teaching would be done by mechanical devices and teacher aides, the professional teacher would be released to serve as a sensitive guide for the learner. They maintain that the student would thus take greater responsibility for his own learning, and that the teacher would be freer to use her critical and creative talents to individualize instruction still further.

Regardless of the cheers of the proponents or the booing of the critics, it appears that instructional technology is here—and here to stay. It would seem that the issues of classroom use of the new media will revolve around the old problems of organization, staff, space, finance, and program which are so painfully familiar.

A growing body of specialists will be required to oversee the media and machines in the classroom and to control the flow of materials and programs. These specialists will be key personnel in a developing team of educators and subprofessional aides.

MORE TEACHER DEMANDS

In many ways, the new media will demand much more of the teacher. It has always been difficult to determine what a student's response to stimulus actually is; it will be far more difficult if the student spends some of his time learning from a technological device. The teacher will have to work more closely with the individual to discover what effects the new methods are having on his attitudes and emotions. Also, it becames more vital for a teacher to discharge distinctly human responsibilities. If the democratic values are to be preserved, the teacher must concentrate on developing the potential of every child by stimulating imagination, broadening vision, and stretching powers to build confidence while developing an appreciation of democracy.

It appears that the new instructional programs cannot be administered effectively in conventional school buildings. Efforts to design buildings to accomodate the new media is underway. Total flexibility probably cannot be built in; acoustical difficulties may be too great, expense may be too high.

But is cost to be the deciding factor? Educational technology promises to provide greater opportunities for teachers to perform more creative functions, for more sensitively human ends. Can our society afford not to make the very best and most productive use of its greatest resource, its human materials?

Perhaps the difficult question is *not* how much will the new media cost, but how we can use them to upgrade the teaching-learning process to an extent such that cost becomes secondary.

There is one key question remaining—that of programing and control. It is poor programing, rather than the medium itself, which must bear the brunt of criticism.

FREEZING THE CURRICULUM?

Teachers have long had a relatively wide latitude in selecting textbooks and resource books for a given subject field. In the matter of selection of audio-visual materials, teachers have been somewhat more restricted, due to high production costs and market limitations. But preparing motion pictures, TV programs, audio tapes, or teaching machine programs requires the outlay of *large* sums of money. Such materials are revised only at great expense, and this barrier to flexibility has caused some alarm concerning the possibility of "freezing" the curriculum once an investment in programing has been made. There are persons pointing out the danger of a national curriculum materializing, or that agencies could produce standardized materials in packaged form that could not easily be modified to meet local district needs.

It appears that answers to these problems are yet to be developed, but the problems vary only in degree and complexity from similar problems long ago faced in education. One basic principle learned from experience with the new media is: Teaching materials must be under control of the teacher who should select them for the unique contribution they can make to a teaching-learning situation as it exists for a particular group of learners. Basic principles underlying all good teaching and learning still apply to the new media and materials.

Certainly, technology is making the future course of instruction capricious and hazardous. Still, if we would be leaders for education, we must look forward. After all, we are the nation which has traditionally faced the problems of providing the greatest opportunity for all to move towards the highest goals of which they are capable. Difficulties, costs, and dilemmas are not new to us. The good old days of education are gone. The days of the future will be what we make of them. •

A Proposal

Arthur W. Foshay

In Educational Leadership

Arthur W. Foshay is Executive Officer, Horace Mann-Lincoln Institute of School Experimentation, Teachers College, Columbia University, New York City. Reported from Educational Leadership, *XVIII (May 1961), 506–16, 528.*

As practicing educators, we know some things about the national demand for excellence in our schools that we must declare candidly. No other nation has asked excellence save for the few. *We* must have excellence for the many.

What exists is a demand—that we make the schools "excellent," and a doubt—that we in education take intellectual excellence seriously. The doubt exists. Acting offended—even though this is justified—won't make the doubt go away. Let's look at what we *have* been doing.

We, in the schools, have caused the entire population to live at a higher level culturally than is true of any similar population in the world. The level and distribution of our mass publications is evidence. With all their faults, taken as a whole they are the least sensational and most informative in the world, and more people read them.

We have paid close attention to the field of child development. In the last two generations, we have developed a humane school to replace the school that used to lose half its students before the eighth grade.

That is part of what we have done, and we have a right to feel proud. However, we have no right to rest on our oars, or to go on living off the fat of ideas developed a generation ago.

When I first began to study curriculum development, I was taught to believe that the curriculum arose from two fields: the nature of the growing child and the nature of society. These two fields, I learned, had been ignored during an earlier era.

Armed with some knowledge of child development and some knowledge of society, I entered on a career in education convinced that my era was one full of freshness and vigor. And I tried to contribute my bit to bring about the ideal of a mass education dedicated to a selffulfillment within a framework of social awareness and responsibility.

Now the theory on which I was behaving seems to me to have been true, but inadequate. Hindsight says that it was flawed from the beginning by failure to acknowledge a third element necessary for the making of intelligent curriculum decisions.

If one were to build a curriculum out of child development and society, what would the curriculum consist of? It would be a curriculum about society, in which the children's needs were not violated. That is precisely the curriculum we tried to put into effect. Social utility, in a fairly narrow sense, became the major criterion we applied—a kind of social utility that would help in solving the problems of that time. These problems are still facing us, and we have added another problem of great magnitude—the need for a feeling of national military security.

However, there are realities in the fields of knowledge that historically we have overlooked. Chemistry, as a discipline, exists apart from our attempts to understand it. It knows no national boundaries; it has a long history. As a field of knowledge, it will survive us no matter what the future holds, short of universal disaster. The same can be said for the other major fields of knowledge: mathematics, philosophy, literature, history, etc.

MY PROPOSAL

Here is my proposal. It is that we educators take into account the nature of the organized bodies of knowledge, in addition to the nature of the growing child and the nature of our society, as we try to make curriculum decisions.

I do not propose that we become "subject-centered," either in a new or old sense. I propose that we examine the subject matter we teach with the same rigor and with the same kinds of help we used in examining the child and society. Curriculum theorizing in the future must take into account the nature of the various fields of knowledge, and the nature of knowledge generally.

This will be difficult to do, but there is room for optimism. My optimism is based on the fact that the basic nature of the conception of academic subject matter is being reconceived. The Physical Sciences Study Commission has approached physics in a basically new way. Professor Karplus of the University of California, with the help of the Association for Supervision and Curriculum Development, has extended this new way into the elementary grades, thus creating for us a portion of a new vision of elementary-school science. Similar efforts are being made in this country and in Europe with mathematics and other subjects.

The generalizaton that fits all these programs has been attempted by Professor Bruner in his book, *The Process of Education.* He speaks, for example, of the arithmetic project at the University of Illinois:

> They have been active in devising methods which permit a student to discover for himself the generalization that lies behind a particular operation, and they con-

trast this approach with the "method of assertion and proof" in which the generalization is first stated by the teacher and the class asked to proceed to the proof. It has also been pointed out by the Illinois group that the method of discovery would be too time-consuming for presenting all of what a student must cover in mathematics. The proper balance between the two is anything but plain.

Two things can be discovered by the method of discovery: One can discover the discipline one is studying, and one can discover one's self as a learner. This itself was the discovery of the project method as described in part 40 years ago.

How does one discover a discipline? A discipline is a way of making knowledge. It may be characterized by the phenomenons it purports to deal with, its domain; by the rules it uses for asserting generalizations as truth; and by its history. Chemistry deals with chemical phenomenons, according to the rules of science applicable to chemistry; both the rules and the domain of the field are in some degree a product of the history of the field. The same may be said for literature, biology, or any organized discipline.

Now the physicists, especially, have been telling us that it is possible for children to come to an understanding of physics directly. This approach to a discipline directly is, I say, the chief meaning of the subject-projects now being developed.

This idea contrasts sharply with the subject-centered approach we have known. It is centered on an attempt to teach children to grasp the intellectual means through which knowledge is discovered, in the hope that they may thus become active, not passive, learners.

BEHIND SUBJECT, A DISCIPLINE

We would do well to consider that behind *every* subject matter we teach in school a discipline lies, or should lie. It is the discipline that contains whatever life is there. We should look toward the development of a whole new series of new subjects, with old names: history, geography, mathematics, the sciences. Consider what is to be said of the crafts we teach, like those in the shop and business courses. The proposition should be examined carefully that behind each of these crafts lies a technology, occupying the same place with respect to the craft that a discipline occupies with respect to an academic subject. Behind automobile repairing is the technology of the automobile itself, which could be studied. Behind the woodshop is the technology and the art of woodwork.

In the degree that we take the fundamentals of woodwork to be the care of tools and performance of a few operations, we have overlooked the rich old technology, and the art, of woodwork. I do not ask that every mechanic become a master machinist, but slovenly workmanship that is so often an object of complaint may be, at least in part, a product of a too narrow version of what is "fundamental."

I do not think it will be easy to win understanding of this approach. Our whole pedagogical history is against this kind of thing. We seem heavily committed to the externals—to formalism. We have brought up a whole population that does not know the difference between grammar and composition, because we taught the one in the name of the other. Similarly, we have taught places in the name of geography, almost losing this vitally important and interesting field to our schools. We have taught facts and canned interpretations in the name of history, betraying a basic discipline. We have taught computation in the name of mathematics, and facts and principles in the name of laboratory sciences. It will not do. It would not do in 1900, when Dewey and the others rebelled against it. It was not good enough in the 1930's when I joined many who will read this in rebelling against the "subject-centered" curriculum. It certainly will not do now.

OUR ROLE IS CLEAR

When we view subject matter and disciplines as described here, our role as educators becomes clear. Our task is to translate the disciplines into viable subject matter. In the course of doing this, we have precisely the task of bringing to bear on the disciplines, as the scholars tell us of them, the knowledge we have of the practical necessities of child development, the nature of society and of the school's place in it, and learning theory as it continues to grow.

We have neither the skill nor the responsibility, as educationists, to remake the academic disciplines or the basic technologies. Our task is to demand of the people who make these disciplines and technologies that they speak to us in a way so that we can understand their fields, so that we may make effective and accurate translations.

Given this new and more vital approach to intellectuality in school subjects, how are we to view the need that children have when they leave school, to deal with the practical problems of the world in a way that is better because they have been in school? The assumption the academics make is generally that if one knows the principal fields of knowledge in depth—and this is what I am proposing that we teach—one can use such knowledge to grasp practical problems in depth. This claim is plausible, but largely unexamined.

The fact is that many a sophisticated scientist is a very naive citizen when he tries to deal with public matters, and the reverse is also true.

A balance in the curriculum must be maintained between what is rigorous and deep, and what is immediate and practical. We are called on, both by the times we live in and by these new possibilities, to strike a new balance. •

Are They Effective in Their Programs?

The Influence of Teachers' Organizations

MYRON LIEBERMAN

In Social Forces Influencing American Education

IN trying to assess the influence of educational organizations, our first problem is the sheer number of organizations. In 1960, the section of the U.S. Office of Education *Education Directory* devoted to education associations required 128 pages.

Although there are many kinds and sizes of teacher organizations, for all practical purposes there are only two comprehensive teacher organizations in the United States —the National Education Association (NEA) and the American Federation of Teachers (AFT), the latter being a teachers' union affiliated with the AFL-CIO. The most important single difference between the two is that the AFT excludes administrators above the rank of principal from active membership. Each of the two organizations, but more especially the much larger NEA, has a large number of local and state affiliated organizations.

Evaluation of the influence of occupational organizations is a difficult task. There is first the factual question: What has the organization done? With teachers' organizations, this is a tough question to answer because they have not been studied intensively. Furthermore, knowing what they have done is one thing; knowing the impact or influence of what they have done is something else again. If salaries have gone up, it may be practically impossible to disentangle the organizational influence from other factors.

Myron Lieberman was formerly Director, Basic Research Department, The Educational Research Council of Greater Cleveland, Ohio. Reported from Social Forces Influencing American Education, *Sixtieth Yearbook of the National Society for the Study of Education, Part II, 1961, 182–202.*

Let us turn first to various focal points of organizational activity and try to assess the impact of the NEA on them. For several years, the relative economic position of teachers has hovered slightly above the average for all employed persons. This represents an improvement over the war and immediate postwar years but no advance, and possibly a decline when all factors are considered, in the long-range (50-year) economic position of teachers.

Professional ethics is another area wherein teachers' organizations have had only a superficial influence. Teachers are not significantly affected by the professional codes which have been adopted by the NEA and its state associations.

Control over entry is one of the key objectives of all major unions and professional associations. Teachers as an organized group exercise very little control over certification. In fact, in some states, teachers are excluded by law from the state boards which license teachers, and the trend in this direction seems to be as strong as any opposing trend.

The impact of comprehensive organizations on teacher education likewise appears to be minimal. The state associations have been active in promoting legislation calling for minimum standards of preparations, and some type of minimum certification standard prevails in every state. We can concede that in many states the standards are higher than they would be without the activities of the state associations. Nevertheless, there is ample documented evidence attesting that the level of teacher education and certification is still very low.

The NEA, through its National Commission on Teacher Education and Professional Standards, has been instrumental in establishing the National Council for the Accreditation of Teacher Education (NCATE). However, the NCATE does not, as yet, have the power to protect the public and the profession from substandard programs of teacher education. A few states now require applicants for a teaching certificate to have received their training in an NCATE-approved institution, and there is some apprehension among smaller institutions not yet approved that this movement will grow at their expense. Nevertheless, this writer does not know of any movement or circumstance indicating that the NEA or the NCATE has had a major impact on teacher education. As for the AFT, it has yet to recognize teacher education as a major area of concern.

ORGANIZATIONAL IMPACT

Leaving aside the conventional criterions of professional progress, we come to the matter of organizational impact on public opinion. It may be suggested that teachers' organizations are not successful in setting forth and achieving reasonable professional goals, but how successful are they in responding to the proposals of others? Do teachers' organizations have any veto power, as distinguished from the power to initiate educational policies?

On routine employment matters, it is safe to assert that teachers' organizations ordinarily have little influence in shaping employer policies or in preventing unwarranted interference in educational matters by other groups. From a strictly employment point of view, most teachers' organizations are ordinarily too weak to resist successfully even the most flagrant abuses on the part of school authorities. Most local organizations lack the resources to put up any kind of resistance along these lines, and, when they do become involved in supporting an individual teacher, it is usually on a post-mortem basis.

The weaknesses of teachers' organizations extend also to their inability to prevent the miseducational policies and programs advocated by other pressure groups. The evidence supporting this conclusion is necessarily diffuse, but some concrete instances can be cited. Curriculum prescriptions by state legislatures have been increasing for years despite widespread agreement by educators as to their undesirability. More so than any other group, teachers have been forced to accept unprofessional and humiliating loyalty oaths. Studies of textbook content and instruction, especially in the social studies, reveal a widespread neglect of issues dealing with race, religion, sex, economic policy, and other important controversial issues. It is conjectural as to how much of this failure is due to teacher failure to grasp the importance of certain issues and how much is due to restrictions on their freedom to teach as they see fit, but unquestionably the second reason plays an important role in many communities.

All this is not to say that teachers never resist community pressures. They do, but seldom as an organized group. Teacher resistance has made enormously difficult the supervision of large numbers of teachers. Board policy may be one thing, but, when teachers close classroom doors, practice may be another. Teachers may be ordered to teach an extra class without more salary, but it is practically impossible to prevent them from sloughing off on the job if they choose to do so. As in every bureaucracy, policy gets changed and diluted as it goes down the line. Insofar as teaching methods are concerned, it is likely that the public furor over them never had any great classroom impact, one way or another.

The failure of educational organizations to influence public policy or action is most dramatically illustrated by their irrelevance to the course of racial integration in public education. For many years, equality of educational opportunity has been a major rallying cry among teachers' organizations, especially in their efforts to secure federal aid to education. But it was the NAACP, not the professional organizations of teachers, which successfully attacked the issues sustaining inequality, including the differential salary schedules for white and Negro teachers. The 1954 Supreme Court decision declaring racial segregation unconstitutional did not find endorsement in the NEA platforms from 1955 to 1959. The NEA did appoint a committee to study problems of integration in 1959. The committee report in 1960 included no recommendations for action.

The AFT record concerning integration is much better. It provided legal support for Negro plaintiffs in the suits which overturned segregation in public schools, and it has all but eliminated locals based on race. But the AFT has always been very weak in the South, so its more aggressive stand for racial equality does not expose it to any major risk of defection. It is surprising that the AFT has been so ineffective in using its liberal stand concerning integration to recruit membership in northern urban areas.

The failure of teachers' organizations to have any substantial impact on public opinion is particularly striking when viewing the efforts to do so. An enormous amount of printed materials, radio and television programs, and numerous committees from the national to the local level are part of the effort to induce favorable public reaction. Why, then, are these organizations unable to carry out even modest programs of educational reform and typically lack as much power on educational matters as other leading pressure groups?

The following list undoubtedly includes the major reasons:

Ninety percent of the local and all of the state associations affiliated with the NEA, and the NEA itself, permit unrestricted administrator membership. As a result, most comprehensive teachers' organizations are employer dominated and oriented away from vigorous action to advance their objectives.

A long tradition among teachers of using only nonpolitical means to achieve their goals. This tradition has two major roots. One is the desire of school boards, as employers, to keep their employes weak. The other factor is the broader fear of the American people of intensive political activity by public employes. The feeling that teachers should be objective in their teaching has further contributed to the unrealistic and undesirable belief that they should be nonpolitical outside the classroom.

The fact that teaching is predominantly a female occupation, and that predominantly female occupational organizations are usually less aggressive than those predominantly male.

A false concept of professionalism which has led teachers to ignore the fact that professionalism often imposes an obligation to resist rather than to blindly follow public opinion.

Insofar as they are active in politics, teachers' organizations have never developed a realistic strategy for political action. They have overstressed the importance of action at the level of the local school board, where organizations are weakest, and have relied too much on diffuse appeals to public opinion instead of focusing political pressure on key individuals in government.

Despite this rather gloomy analysis of the organization in education, this writer is hopeful about the future. The emergence of collective bargaining in public education is likely to be a major step toward the decline of employer-dominated teachers' organizations. A teachers' organization free of administrator domination could launch the organizational revolution in education, the most important single educational need of our time. •

Three Tests for Each Student Every Year

Are Americans Over-Testing?

In Overview

WHEN this school year ends next June, approximately 125 million standardized tests will have been given during the year to this nation's school children. That total is nearly three times the total enrolment of all students in public and private education, from kindergarten through graduate school. The extent of testing, as well as its predicted rate of expansion, is causing educators to take a look at what is—and is not—accomplished by standardized tests.

Elementary-school children are the largest single group being tested, but it is the secondary-school students who are exposed to the greatest variety of tests and are under the heaviest testing pressure. They face batteries of tests each year to qualify for scholarships, college admissions, job placement, and "better personality development." In one year it is not unusual for a high-school student to put in the equivalent of three full working days and to pay $20 in fees for the privilege of having his brains picked by standardized tests.

Just how much good these tests accomplish is still an unanswered question. When each is carefully selected, intelligently administered and scored, and placed in a scale with many other elements of the human personality, tests do contribute some valuable information. But there is mounting evidence pointing toward "over-testing": the same student taking different tests that reveal essentially the same things, tests being given and improperly interpreted, tests being given and the scores not realistically interpreted at all.

There is one fallacy that must be guarded against in criticizing testing. Critics often equate the test-writer with the test-seller. The equation may have been appropriate once, but not any longer. Test-making is a highly sophisticated art which has attracted some of the keenest minds in education—Terman, Wechsler, Lindquist, Thorndike, and others. But the presence of state and federal money, plus intensified competition among publishers, now require a distinction to be made between test-writing and test-selling.

While the test-writers speak freely of the "bugs" in their own work and carry out exhaustive research to correct them, the test-

Reported from Overview, *II (August 1961), 31–33*

seller heads in a different direction. Publishers are coming perilously close to swapping the cap and gown of scholarship for the gray flannel suit of salesmanship to recoup the enormous investments each of their tests demands. Even Educational Testing Service (a nonprofit organization) protests too much, saying in a handsome little brochure that their Scholastic Aptitude Test ". . . provides college admissions officers and high-school counselors with a common gauge which measures the same degree of ability in Maine as it does in California."

Bombarded by this kind of pressure, the average educational administrator has cried for help. Three groups (the American Association of School Administrators, the Council of Chief State School Officers, and the National Association of Secondary-School Principals) heeded the cry and formed the Joint Project on Testing. Charles Holt, director of the project, has reported some of his findings:

". . . Much of the duplication in testing is caused by the requirements of a particular test on the part of external agencies such as colleges, scholarship donors, or state agencies. These programs preclude the possibility that schools can make a choice from among the competing programs. Because of the requirements of specific tests, it makes small difference whether a school prefers one program over another or even whether the testing is duplicative or redundant."

Holt cites the mismanagement of NDEA funds and other causes of over-testing and recounts some of the less formal pressures put on school administrators:

"We are *expected* to participate. Other schools do, we must . . ." "The school is placed in a position of denying children if it does not participate in every testing program offered . . ." "The quality of education is currently measured, to a large extent, on the basis of student achievement in national and state testing programs . . ."

Any discussion of testing must give attention to the standardized college admissions examination. Because differences between schools can be so great, and innately intelligent children may be found anywhere, the standardized college admissions test has seemed to be the best tool for higher education. It works to prevent admitting too many low-ability students to college and then flunking them out at a set rate. However, the most frequent voices raised against the admissions test are from college and university people themselves. Formerly, only campus mavericks would pooh-pooh the college entrance exam. Now the topic is respectable and widespread.

"The student's record after he gets to college tells a much better story than precollege data," says F. Chandler Young, an assistant dean at the University of Wisconsin.

In 1956, the University of Kansas admitted 208 students who had *failed* their freshman college entrance exams. Four years later, the university revealed how they had done: 46 made the dean's honor list, six made honor societies, one was elected to Phi Beta Kappa.

A key complaint, and a legitimate one, of admissions and scholarship personnel is the chaos in secondary-school reporting. Meticulous reporting produces unmanageable volume; thumbnail, rough records are not trusted. But deeper than this is the competency of the people doing the reporting.

Benjamin Shimberg of Educational Testing Service has found that "one school in 10 has a full-time counselor; four in 10 'make-do' with part-time counselors; five out of 10 have no one on their staff who devotes even part of his time to counseling. All told, there are about 20,000 individuals doing counseling in secondary schools." After adjustments, it turns out to be "equivalent to something like 12,000 full-time counselors." This is the number of test-involved individuals in the nation's 30,000 secondary schools.

There is a discernible trend in the direction of more inservice training in the complex art of measurement. There are calls for more workshops, institutes, attendance at summer school, correspondence and extension courses, and supervision on a greater scale than is now practiced. The National Council on Measurement in Education has set up a committee on inservice education to keep professional educators informed and interested. The committee chairman, Benjamin Rosner, sees the challenge clearly:

"The evaluation of professional competence (in measurement) is a professional responsibility . . . Educators must provide the necessary training to ensure this competency."

The testing pattern in American education is highly complex. The loudest voices for "local control" in all other aspects are frequently in that chorus which demands curriculum changes to satisfy national test questions. Well-meaning souls who would deny no child the opportunity to advance himself through a nationwide test will frequently bungle the administration of score-reporting of the tests. In an effort to refine scoring, conscientious test-makers cultivate a near-hopeless jungle of reporting. Reforms are urgently needed, educational leaders admit.

Efforts such as the AASA-CCSSO-NASSP Joint Project are crucial and demand the support of the profession. And the profession, apparently, is ready to work. •

FORMERLY, if you got A's on your report card, you were called a grind. Now you're a well-motivated achiever in the college-level percentiles.—From *Changing Times.*

Three Restrictions to Be Transcended

Improving the Learning Situation

ALEXANDER FRAZIER

In NEA Journal

FOR 10 years we have been making a piecemeal approach to the problem of how to provide a free-learning situation. Efforts have included special provisions for the gifted, attempts to remove the "ceilings" from many areas of learning, more time for individual or independent study, development of new media and materials, and a movement toward bringing new standards of supply and staffing to school libraries.

These efforts have all been directed at breaking through a narrowed concept of education, inherited from another era, in which the resources for learning were limited and ideas of what children could and should learn were circumscribed by overattention to what everybody must learn.

Today, moving toward a new level of agreement, we seem to say, "We must liberate the learner from the restrictions that have held him down." And there is a better understanding of what those restrictions are. Reliance on too closely graded content is one. Use of a single text for study is another. Reference to the group instead of to the individual as the sole criterion for achievement is a third.

We are now working in many ways to transcend these restrictions.

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When content is arranged in too closely graded levels of difficulty and parceled out a bit at a time, ceilings are established over what we allow children to learn. How can we free the learner from such ceilings and still insure that his learnings adds up to what he needs to know? Efforts are being made to answer that question.

For example, in beginning reading many teachers are trying to develop methods of helping children to start to read on their own after gaining a sight vocabulary of a few dozen words. Publishers are helping by issuing books for beginners with as few as 50 to 75 different words. Teachers are discovering that if they have the scope and sequence of reading skills well in mind themselves, they can use many materials to help beginners make their way to a level and breadth of reading that was once thought to be beyond them.

Similar experiments are being conducted in arithmetic. These experiments, conceived of as freeing the child to learn what he can, seem to have much merit. However, it must constantly be kept in mind that, instead of freeing the learner from ceilings, we may simply be building new, though somewhat higher, ceilings to box him in all over again.

There is much discussion from many sources about learning that is open rather than graded. Emphasis on the generalizations and their relationships in a learning area and emphasis on the structure of a subject field promises renewed attention on learning by wholes rather than learning in terms of bits and pieces. According to this approach, the content of experience can be drawn from many sources, and the learner can be helped to discover meanings for himself—meanings that are held together by the internal structure of the field and that increase with growth in experience and maturity.

What all this amounts to is that the framework for learning has been transferred from a course of study or textbook to the mind of the teacher. Under the teacher's guidance, the learner seeks to add to what he already knows and to relate his findings into ever larger structures of his own designing. As this transfer takes place, the task of the teacher becomes more difficult and more professional. For the beginner, being progressively freed to learn can only mean more excitement brought to the act of learning.

Obviously, if we are to free the learner from over-graded content, a long look at textual materials is in order. We can easily agree that confining study to a single textbook is limiting. We need to ask: How can we emancipate our instruction from this kind of self-impoverishment?

Materials for study in every area have increased enormously during the past few years. New, improved books, the array of audio-visual materials, etc.—all are indicative of our new riches. Moreover, we receive subsidy for purchasing in several fields and it is likely such subsidy will be extended.

Our first task is to insure that all schools have a full range of these useful materials. In this, there remains much to be done. At present, 51 percent of our elementary-school pupils lack access to an adequately staffed school library. Also, where these libraries exist, they tend to be inadequately supplied. In school libraries generally, there is an average of five books per pupil—half the number recommended by the new standards of the American Library Association. Currently, there is an average of $1.60 spent for library facilities per pupil as against the recommended $4 to $6.

But securing a broadened base of instructional materials is not enough. We must incorporate these materials into the teaching program. Learning how to make good use of multiple materials means that we need to re-examine some of our most limiting procedures from the past. We must not settle merely for helping children to use the materials if they ever have reason to—we must see that they do have a reason. Also, we must guard against becoming so delighted with a new material or resource that we find it an all-purpose replacement for the old ones. There is some evidence of this already in that some enthusiastic proponents urge television or teaching machines as substitutes for other single texts.

Liberating the learner from too few materials means learning new uses for the textbook and new ways of bringing all available learning resources into the process from the start. It means that teachers have new opportunities to function at a high professional level. It means access to a new wealth of information and ideas for the learner.

GROUP REFERENCE

The restriction on learning caused by an overconcern for group achievement is linked to the difficulty of teaching all students the things we feel they need to know. It happens frequently that we overlook the individual who *could* learn something not necessary for others to learn. The question is: How can we insure the common learnings and yet free the individual to learn a great deal more than is required?

The problem would be simplified if we could agree that there may be many paths to common learnings. There can be no question of the need for the common learnings. In some areas, we depend as a society on certain kinds of consensus; in others, we know that subsequent learnings require an established base. In every area, there are frameworks that give meaning to knowledge. If we can free ourselves from the conviction that these learnings have to come from study of a single text or be evaluated in terms of everyone going through identical study materials in sequence, then perhaps we can find more liberating ways of organizing a group for study.

We know that learners will be interested in exploring deeply many different topics. We know how to construct a common framework for a group so that the individual may pursue his interest, perhaps using in the process parts of a common text. We know how to build on interests, concerns, and purposes of learners, and to seek with them the broadest possible base of resources to provide ways for differing abilities to gain information and ideas from one source or another. Our problem is to develop ways to make such extensions possible in more fields of study.

It is apparent that liberating the learner from restrictions due to overemphasis on group achievement depends on freeing him from over-graded content and dependence on a single text. These restrictions are so closely related that freedom from one depends on freedom from all. •

Two Viewpoints—American and Japanese

Japanese Education—After the Americans Left

DON ADAMS and MAMORU OSHIBA

In Peabody Journal of Education

Don Adams and Mamoru Oshiba are members of the faculty at George Peabody College for Teachers, Nashville, Tennessee. Reported from Peabody Journal of Education, *XXXIX (July 1961), 9–19.*

THE military occupation of Japan after its defeat in World War II has often been described as a happy experience for both conqueror and conquered.

After the surrender, many fast-moving reforms were effected. A democratic constitution was drawn up (written largely by the American military staff and later translated) and readily approved.

Democratic changes began to take place in the industrial complexes, police power, and many other areas. Nowhere were the changes more dramatic than in the field of education. Here the control and administration were taken from Tokyo and decentralized to the province, municipality, and local community. Textbooks were no longer written in the Ministry of Education but by private authors to be published through private publishers. Educational opportunity was extended and more freedom was brought to the hitherto authoritarian classroom. American educators hailed the new policies.

But with the expiration of the occupation in 1952, educational policies and political policies were implemented which seemed to show that Japan was moving away from the direction envisaged by the American military government. Americans began to question the depth of the postwar reforms. Since the policies of the occupation constituted a democratic experiment on a grand scale to make Japan a "show place of democracy in Asia," the outcome of this experiment was of vital concern.

The authors, both educators, one American and one Japanese, have closely observed recent educational changes in Japan from different vantage points. The discussions are concerned with three areas of education currently in a state of flux in Japan.

Educational Control. The establishment of local school boards was considered by the occupational authorities to be an important aspect of democratizing Japanese education. Laws were passed establishing local and prefectual school boards. These boards were designed to have policy-making powers, and the Ministry of Education was relegated to a service agency.

After independence, new legislation provided that school-board members previously elected by the general public would henceforth be appointed by the governor (in the case of perfectual boards), and by the mayor (in case of the local boards). Actions and policies of the local boards became subject to the control of prefectual boards which, in turn, needed approval from the Ministry of Education on important policy matters.

AUTHORS' VIEWS

Adams.—I view these changes as part of the whole process of recentralization taking place in Japan. The Japanese government has justified centralism as a means of eliminating the pernicious political influences of certain groups, particularly the Teachers' Union. While it is true that the leftist-led Union successfully introduced propaganda into the schools, it is also true that many Japanese teachers who are not Communists have opposed government action for professional, not political, reasons.

The action taken in advocating extensive decentralization of educational control was probably hasty, for there are few roots in Japanese culture that would nourish the growth of decentralized authority. While I cannot agree with some occupational authorities who equated democratic education with localized control, I do feel that the Japanese too readily justify recentralization as the only way fitting the culture.

Oshiba.—As far as the revision of the school-board system is concerned, the changes are, I think, generally natural and necessary. I am of the opinion that this educational reform, although made on the American model, was generally good for Japan. However, it was made too radically and too hastily. The people were not accustomed to operating such an extremely decentralized system. There were unforeseen results. Many teachers sought board membership and were elected with the backing of the Teachers' Union. In many cases, the board became barely more than a tool of the Union. Confusion and many incidents occurred which the Ministry was unable to quell due to its reduced power status.

The situation has improved due to revision of the law. Though I agree that decentralization of the educational system was brought about for the purpose of democratization, I do not think it just to call it reactionary or undemocratic if modification has been in the direction of centralization. Nor do I believe that complete recentralization should be adopted in Japanese education in the near future.

Extension of Educational Opportunity. Occupation authorities took four basic steps to assist in extending and increasing educational opportunity: reorganization of a multi-tract system into a single-tract system with the concurrent extension of compulsory education from six to nine years; provision for coeducation at the secondary and higher levels; establishment of part-time and correspondence education; and restructuring of higher education, including the introduction of "American" style graduate programs and a system of junior colleges.

In the post-occupation period, the following changes have taken place: The last year of the junior-high school (which is also the last year of compulsory education) now offers prevocational as well as courses preparatory for high school. Separate schools for girls and boys have appeared in some cases at the secondary level. There has been an increase in the number of regular students, but surprisingly a decrease in the number of part-time students. New graduate courses have been added to the universities, but some faculties still refuse to "Americanize" further by offering the Ph.D. degree. The reorganization and the functions of the junior colleges are still under discussion.

Adams.—Again these changes smack of American biases, and I think the ones that will remain must have roots in Japanese thinking. Considering the tremendous drive of the Japanese people, nine years of compulsory education will probably stay in existence, as well as the part-time classes and correspondence courses. The changing attitude toward the role of women is the outgrowth of industrial needs, as well as postwar educational thought. Because of this, coeducation will be a lasting part of the Japanese scene.

I cannot accept the validity of two of the changes urged by the Americans. The suggested extension of general education studies was, I believe, premature considering the economic level of Japan. Professional criticism could also be leveled at the formal graduate programs with their ritualism of prescribed courses. Japanese educators were correct in their analysis that such arrangements have bureaucratic but not scholastic significance and could not substitute for a prolonged intimate working relationship between professor and student.

Oshiba.—I feel that these changes are relatively minor and neither retard nor stimulate educational progress in Japan. Here are my views:

The reintroduction of a differentiated curriculum in the junior-high school is not an act against equality of educational opportunity, nor is it a rebirth of the dual-track system. Such modifications in the curriculum as have been made are for the purpose of providing more challenging experiences for the able students.

The introduction of coeducation was one of the best policies that the occupation left in Japan. Though it was enforced despite the wishes of most parents and teachers, results have been good generally.

Before the war, only 15 percent

of elementary-school graduates entered secondary schools. Now nearly 100 percent of the youth enter junior high, and 60 percent of these enter the senior high. This may be cited as remarkable proof of extension of educational opportunity.

Curriculum and Methods. The occupation authorities tended to make it possible for teachers to exercise more freedom in developing materials adapted to the individual student. By rewriting history textbooks and excluding explicit instruction in moral education, nationalistic propaganda was eliminated. Liberal Japanese educators joined in the task of breaking the formal lecture-recitation method. American advisers and Japanese scholars introduced such un-Japanese schemes as the Virginia Plan and the Santa Barbara Plan. Everywhere teachers could be found discussing the "experience curriculum."

Post-occupation changes, brought about largely by the Ministry of Education, reversed many of these trends. The Ministry strengthened its supervision of textbook content. Academic standards were tightened, and a special course in moral education was introduced. Some authorities stated that excessive freedom in the schools had ill effects on Japanese youths. Although the schools did not acquire the semimilitary aspects of prewar days, they did lose much of their progressive appearance.

Adams.—There seem to be two parallel movements in recent Japanese history affecting Japanese cultural and educational development. The first is a tremendous effort to acquire the technical skills needed by an advancing industrialized power. Also, there has been the consistent effort of Japanese leaders to preserve what they consider to be the true Japanese way of life. It seems to me that increased supervision of teaching, dissatisfaction with the social studies and other life-adjustment efforts, and the re-introduction of a separate morals course indicate that the older generation wishes to reinstill the tested values of tradition.

But a large proportion of the teachers have accepted the newer curriculum and methods and are resisting changes which may bring about the more formal, rigidly academic school.

Oshiba.—With regard to the apparent widespread criticism of the "new" education, it only exposes the Japanese tendency to imitate. Japanese scholars are very diligent in introducing a new idea, thought, or theory from abroad. They have noticed the decline in popularity of progressive education in America. No wonder it is fashionable to speak unfavorably of the "new" education. Japanese teachers understand and like the spirit of "new" education, but they are obliged to follow a more rigorous approach so that students may be prepared for the severe entrance examinations. •

Better at the Top Level

Another Look at Teaching Salaries

SIDNEY G. TICKTON

In Teaching Salaries Then and Now—A Second Look

FOR as far back as the records can be traced, America has underpaid its teachers, professors, and educational administrators. It has filled the teaching ranks with "dedicated" men and women who would rather be teachers than anything else, persons who would trade some economic affluence for an academic atmosphere or the way of life that characterizes school teaching, academic research, or similar activities.

A few years ago, Beardsley Ruml needled the American public with the fact that a teacher was paid less, on the average, than a skilled mechanic, and that a university professor received less than a locomotive engineer. By the end of 1959 the situation hadn't changed much, but some activity was beginning to be noticed on the education front—at least at the top level.

The increasing number of school children and the prospective ballooning of college enrolments, coupled with an increasing number of highly trained academic and professional men being lured into research and administration, had resulted in pressure being put on school boards, college boards, and legislatures. Salaries of top-level educators were beginning to run higher.

There are some examples now of salaries in the $25,000 to $50,000 range, a level which Ruml pointed out was needed to return the best paid educators to a standard of living comparable to that enjoyed by their academic forbears at the very beginning of this century (after allowing for taxes and changes in costs of living). For instance, there is a university president now being paid $45,000 a year, a superintendent of schools being paid $42,000, and a number of top professors getting from $25,000 to $27,000, with a top man at a medical school in the $35,000 bracket.

Not all top-level educators are receiving these kinds of salaries,

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and even those with the highest pay haven't quite achieved the turn - of - the - century purchasing power, but they won't wait long if present trends continue.

High salaries haven't yet filtered down to many classroom teachers, but the half-century deterioration in the relative purchasing power of education as compared to industry, which Ruml noted for 1904-1953, has stopped for the time being. Percentage increases in relative purchasing power for educators from 1953 to 1959 are nearly the same as in industrial occupations. The sources for the statistics used here are the U.S. Office of Education, the U.S. Department of Labor, and a number of professional societies.

COMPARABLE SALARIES

To those concerned with the effect of adequate salaries on the future supply of qualified teachers, researchers, and scholars, the big question is, "Will the change in salary trends insure an adequate supply of trained manpower for education in the future?" No one knows for sure, but the answer is probably, "No." The fact is that, despite increases in recent years, teaching salaries are still lower than the amounts paid persons in other occupations with comparable college training and experience. This can be documented easily.

The following jobs in industry all require a bachelor's degree: research and development personnel, engineers, chemists, accountants, salesmen, and general business trainees. As of 1959, the starting salaries for these positions ranged from $5,090 to $6,370. Starting salaries for teachers in the public schools of Buffalo, Albany, New York City, Washington, D.C., Los Angeles, and Chicago ranged from $4,000 to $5,000.

For jobs in industry requiring a master's or professional degree and five years' experience, the salary range is from $7,200 to $8,300. For public-school teaching positions requiring an equal amount of preparation and experience, the salaries in the schools of New York City and several of its suburbs range from $5,800 to $6,500.

And, for jobs requiring a Ph.D. degree, engineers and chemists in industry receive salaries ranging from $8,580 to $9,925. Junior faculty members in large colleges and universities are paid salaries ranging from $5,000 to $7,000.

The figures are quite articulate spokesmen.

Moreover, for elementary-school teachers (after four years of full-time college and professional training) first bracket salaries are no better than those of skilled office workers having only a high-school diploma and two to three years *on-the-job* training. In late 1959 in New York City, for example, a teacher in the first salary bracket was paid $4,500 a year. Women accounting clerks (senior) averaged $4,576 a year, private secretaries $4,758, and tabulating machine operators $5,044. Also, the office workers had no papers to correct, no lessons to plan, and no summer inservice course to take and to pay for from their own purse. In addition, the office work week was down to 36 hours, quite close on the average to the in-school job-time of many teachers.

This comparison doesn't overlook the fact that teachers work a nine- to ten-month year whereas office workers usually have only a two- or three-weeks vacation. However, when the difference in the amount of training needed to be a teacher is compared with the on-the-job training (while being paid) of office workers, it is clear why, after 15 years of postwar campaigning for better salaries, there is still a shortage of well-trained teachers.

What to do about this, with rising taxpayer resistance to increased property taxes (the major support of school salaries) is a problem that continually plagues school boards, school administrators, teachers associations, and legislators. Some believe that it isn't just a matter of increasing teachers' salaries—that something has to be done to increase teachers' productivity.

Increased productivity is a fighting concept in education quarters when teachers hear that it means more students per teacher—even if it means no more hours in class and is accompanied by a substantial salary increase. This *can* be achieved today through the use of such devices as TV, teaching aids, language laboratories, clerks to handle nonteaching duties, etc.

But educators can't deny that, in industry, increased productivity has been the one approach (besides tight unionization) that has pushed up the "real" income of skilled workers across the nation. In the 1960's, it may provide the lever for raising teachers' salaries. That lever has long been missing. •

• The NEA Research Division reports the following as the median and mean (average) salaries in 1960-61 of principals in urban school districts, 30,000 to 100,000 in population: elementary schools, $8,252 (median) and $8,333 (mean); junior-high schools, $8,998 and $9,113; high schools, $9,904 and $9,998; junior colleges, $11,375 and $11,466; and part-time, continuation, or adult education schools, $11,250 and $11,226.

• Teachers are the most docile group of workers in the world. They continually apologize when asking for salary increases. Yet they are paying for the education of those they teach by accepting low salaries . . . They (also) are the most inadequately organized group in American life. They have more organizations than any segment of the population, but no organization.—*Lester S. Vander Werf.*

Diversity Is the Word

Summer Programs for Students and Teachers

GLORIA CAMMAROTA, JOHN A. STOOPS, and FRANK R. JOHNSON

In Extending the School Year

THERE is every indication that the provision of summer enrichment and improvement programs for students and of summer inservice programs for teachers is fast becoming accepted practice, and that in the near future, year-round programs will be an actuality in many districts. Various school systems have offered summer enrichment work for years and consider it an essential part of a sound year-round program. Other systems are in the process of developing summer programs, and most are enthusiastic about their experiences to date.

Much that is happening is new. The following paragraphs will be concerned mainly with the extent of summer programs, grade levels provided for, length of programs, types of opportunities provided, procedures for financing, and summer inservice programs for teachers.

Thirty-two of the 34 chief state school officers responding to a letter of inquiry indicated that summer enrichment programs for students were being provided in their states. Follow-up letters to districts brought 130 replies from 21 states. One hundred and five of the districts stated that they were providing some type of enrichment program for students during the summer months. Fifty-six of these stated that their programs had been in existence less than five years; 11 had their programs between six and 10 years; 29 had their programs for more than 11 years. Many of the latter group remarked that their programs had been organized as make-up programs and later expanded to include enrichment.

An example of a strong summer-school program, one that must not be considered representative, is found in the state of Florida. In the summer of 1957, 300,000 (45 percent) of Florida's school-age children voluntarily returned to school for the summer to participate in the 11th and 12th months enrichment program. All of Florida's 67

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county school districts were involved. This was part of a statewide program to make possible the provision of enrichment opportunities for young people during the summer months. Since 1957, the program has met with continued success.

Many summer programs within individual districts provide for students at both the elementary and secondary levels. The information available indicates that if the program is for only one level or the other, it is more apt to be at the secondary level. Of the 105 districts in the survey, 53 had programs that cut across elementary and secondary lines; eight had programs only for the elementary level; and 39 of the districts provided summer enrichment programs for secondary-level students only.

As is evident in all material regarding summer programs, diversity is the outstanding characteristic. This is evident in the length of summer sessions in weeks and hours. The median length of summer programs at the elementary level is 6.6 weeks; and at the secondary-school level, 7.3 weeks.

As for the length of time in hours, in most summer programs this is dependent on the type of activity. In the great majority, students attended classes only during the morning. Classes varied in length from one to three or four hours and, usually, students were limited to no more than two classes.

Diversity also distinguishes the subjects offered in summer programs. A study of 30 districts shows that in the academic areas, 21 offered algebra and foreign language; 17 offered biology, etc. At the secondary level, the course content is usually largely determined by current emphases in the field being studied. At the elementary level, students and teachers often identify specific areas of concern from within the broad subject field.

The nonacademic areas are among the most popular of summer enrichment subjects. Driver education, instrumental music, art, and industrial arts are examples. Many students do not have time to experience these during the regular school year. Improvement work in the basic skills of reading, arithmetic, and speech is among the most common of summer enrichment activities.

While many of the summer-school offerings are very similar to those offered during the regular school year, many educators use the summer months to experiment with new ideas. Unique physical characteristics of school location and particular abilities or interests of teachers and students make unusual offerings possible. Thus, programs may include classes in interior decorating, great books, marine biology, and many others.

SOURCE OF SUPPORT

There are three main sources of financial support for summer programs: student-paid tuition, locally appropriated funds, or state funds. All manner of combinations and proportions of these three sources are practiced. In rare cases, private funds are available to underwrite the cost.

In the matter of student-paid tuition, it is difficult to make an accurate appraisal due to complications concerning methods of reporting data. However, from scanning the data, it appears that fees per subject are seldom less than $10 and seldom more than $25. One study shows that of 28 districts, seven are financed completely by student tuition, and seven others are financed through a combination of funds from the local district, state funds, and tuition. In another study, 30 percent of the schools reported that no tuition was charged.

The question of state aid is difficult because each state has its own laws and philosophy concerning summer-school programs. The proportion of state aid varied from 20 percent in one district to 100 percent in another. Certainly, no definitive statement can be made.

There are a few instances of privately supported summer programs for public-school students. Each one that exists is different. The Mark Twain Summer Institute, an independent organization supported by grants from foundations and individuals, provides summer offerings for selected superior students in Clayton, Missouri. The Clayton Board of Education furnishes the physical facilities. In Flint, Michigan, the Mott Foundation and other contributors maintain a year-round education-recreation program.

Diversity is also the word best describing the summer inservice opportunities for teachers. However, a study of available information indicates that considerable amount of activity is underway. Many districts organize workshops which extend from two days to a week during August. Other districts have two- or three-week workshops before the opening of school.

A growing practice is for districts to provide opportunities for teachers to work during the summer on specific tasks, such as: the development of teaching guides, development of curriculum materials centers, and development of professional competency or specific knowledge for individual teachers. The length of time allotted is usually determined by the type of work or the amount of money available. Thus, the length of time spent on these activities varies considerably among the districts, ranging from one to eight weeks.

Some districts provide for teacher on-the-job training during the summer. It appears that most activity in this area is concerned with the teaching skills. Provisions are made for teachers to work with students in the morning, and in the afternoon opportunities are provided for the teachers to work together with supervisors to plan and evaluate the work. •

Do You Understand the Maturing Process?

Adolescence: Madness, Mystery, or Milestone?

HAROLD T. CHRISTENSEN

In The PTA Magazine

IS adolescence necessarily a time of headache and heartache, or can it be a period of promise? Perhaps it must contain both difficulty and delight. It frequently becomes more of a problem than it need be, simply because parents and adolescents (and some teachers, too) don't understand the maturing process.

Because adolescence is a period of great change, it generates insecurity. The young person, no longer a child and not yet an adult, lets go of his old roles and still needs time to take over new ones. He vacillates between the desire to break through parental controls and the desire to stay safely within them.

The parents, also, are likely to have contradictory feelings, experiencing both the need to let go and the emotional pull to hold on. Furthermore, finding that patterns of family interaction which brought results with young children no longer are effective, parents, too, feel insecure and unsure. Like any transition, the shift from childhood to adulthood upsets established patterns, creating some uncertainty, confusion, and tension until new behavior becomes accepted and familiar.

The adolescent faces four momentous adjustments, all crowded within a few years. Adolescence begins with puberty. First, then, the adolescent must become reacquainted with his body and learn to understand and control the strange, new stirrings within. Puberty means pimples, awkwardness, restlessness, and the awakening of the sexual urge. It can be an acutely uncomfortable time.

Second, the adolescent must learn how to form mature relationships with the opposite sex. This heterosexual transition is not always accomplished easily, but unless it is reasonably successful the youngster is left unprepared for the experience of mature love and marriage.

Third, the youngster must free himself from the control of his par-

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ents and become a responsible, selfcontrolled agent. Ideally, this process starts in childhood and develops gradually, but adolescence speeds it up and finishes it off so dynamically that we may label this stage an emancipation explosion. The task must be reasonably well completed or the youngster will not be sufficiently independent to establish a successful family of his own.

Fourth, adolescents face the formulation of personal values and decisions on lifework and goals. Young men must make the two most important decisions in their life: whom to marry and what work to pursue. Girls generally are more concerned with the first, but in our society girls also face the decision about employment. Both sexes take their most crucial steps in the development of a philosophy of life.

These problems may be further complicated for the adolescent by the simultaneous occurrence of problems for parents. Frequently, adolescence for children occurs at the same time as menopause for the mother and the heaviest job responsibilities and pressures for the father. If each side is absorbed in its own difficulties and is oblivious to the problems of the other, conflicts may spring up. The building of empathy, or imaginative understanding of another person, is called for on both sides.

Intrinsic differences between the generations make real identification or full agreement unlikely. The young, full of energy, reaches out to conquer the world opening temptingly before him. Youth is ready to incur risk, upset things, take a chance. Age, with less vigor and less time to venture anew, clings to things as they are. Hence, youth tends to be radical and age to be conservative.

When parents and teachers forget the heady venturousness of their own youth and fail to penetrate the ever new meaning of the current youth culture, then adolescence does indeed become to them not only a mystery and a madness but also a source of frustration.

REBELLION IS NORMAL

Most of the rebellion of the adolescent period is normal. It is a mistake to consider the "good" adolescent as the one who always does what is wanted and never gives trouble. The price of such goodness, or conformity, may be the sacrifice of initiative, individuality, and creativity.

Yet sometimes the rebellion goes beyond the normal and desirable and turns into an attack on society, into the illegal behavior that we call juvenile delinquency. What accounts for such damaging excesses?

Many authorities see delinquency as a product of unstable or broken families. Delinquency rates have been shown to be higher in one-parent families, especially where separation or divorce is responsible and particularly where the mother is the absent parent.

But it has also been demonstrated, that unwholesome home conditions, such as neglect, abuse, immoral example, etc., can often disorganize a youngster more completely than the absence of a parent.

A study revealed that 43 percent of a sample of unwed mothers came from broken homes, 36 percent from homes in which the mother was overly dominating, 15 percent from homes where the father's personality was harmfully domineering, and 6 percent from homes with other unwholesome conditions. None of the unmarried mothers had had normal or healthy relationships with their parents.

When we seek an explanation for behavior that damages the youngster or is injurious to society, studies show that we will usually find it in the family setting, the immediate social environment, or both. Excessive rebellion, for example, may be due to an unhappy family situation from which the youngster wants to escape, to a sense of inadequacy from which he wants relief, to the influence of his peers from whom he wants approval, or to a combination of causes. To understand the causes of problem behavior is to increase our power to prevent it.

If parents are to help youngsters to progress safely through adolescence, they need to understand their job and work at it. The main job of parents is to work themselves out of a job.

This requires a gradual letting go on the part of the parents and a gradual taking over on the part of the children. If parents don't let go and children either don't try or are unable to take hold, the result is a lifetime dependency and immaturity. If the letting go and taking hold occur simultaneously and gradually over a long period, the transition will be achieved without serious crises.

Letting go is a fine art that some parents never master. After being the center of the child's world, loved, and looked up to, it is a shock for parents to be challenged, criticized, and defied. There is fear that the child will make mistakes, and it is natural to hold tight control and protect the child from error.

At best, parenthood is a gamble and the wise parent will be willing to take certain calculated risks. By increasing a child's responsibilities and extending his freedom gradually over a period of time, the gamble may be reduced.

Rather than an ordeal, adolescence can be a period of fun, filled with deep satisfactions. It depends on the degree of understanding achieved and the effort put into the common task. If adolescents were less insistent on their "rights" and more eager to demonstrate capacity for responsibility, they would find parents more cooperative. If parents (and teachers, too) were less concerned with obedience as such and more concerned with developing responsibility, they would find children more cooperative. •

Can It Happen In Your City?

A Lesson From New York

In School Boards

THE recent ouster of the New York City board of education by the state legislature has given additional ammunition to critics of our school operation system. Board members throughout the nation—particularly those in metropolitan areas—would do well to face up to the issues involved in the New York controversy, rather than shamefacedly try to sweep the dirt under the rug.

If board members have the courage to examine the New York issues—and make local comparisons—the scandal in New York may not have been in vain. As *The New York Times* pointed out, the investigation of inefficient and possibly corrupt building and maintenance procedures should not be considered anything but symptomatic of the real trouble.

The heart of the problem was the New York board's misconception of its role in managing the school system. Instead of operating along broad policy lines and providing over-all direction of the school system, the board became ensnared in endless minutiae of day-to-day operation. Details which could have been properly handled by the professional staff were channeled through the board, burying them under mountains of paper work. The resultant lack of over-all direction is now sadly apparent.

A second major failure was the board's unresponsiveness to the public. Although machinery had been set up to bring the board in closer touch with the people, implementation of the program had been neglected. The board chose to run the gargantuan system from its highly centralized main headquarters. Reforms now adopted indicate that James E. Allen, Jr., will do all in his power to bring about decentralization of authority.

The board has also been criticized for the manner in which it selected a superintendent. Instead of combing the country for the best available person, they placed a premium on local availability. Unfortunately, this is all too often the case in selecting a man to head what, in most instances, is a community's largest business—certainly one which involves its most precious commodity.

The political nature of the ap-

Reported from School Boards, *published by The National School Boards Association, Inc., IV (September 1961), 4.*

pointment of board members has been highlighted in recent criticism. With selection based on maintenance of a strict balance between all races, religions, and boroughs in the city, board members were not spokesmen for one unified school system. Each became the representative of a particular minority group with a special point of view that took precedence over the welfare of the whole school system.

The board also has been condemned for its fiscal policy. A good board's duty is to fight for the money it believes necessary to carry out a sound educational program. The ousted board has been characterized as too often seeming to apologize for what was politically possible.

Finally, board member's attendance at regular and committee meetings was spasmodic, and their interest at public hearings was even less adequate. Frequently, public spokesmen waited for hours before board members emerged from executive session. Under these circumstances, it is difficult to believe that the public meeting that followed was little more than a ritual after the facts.

Many of these signs were recognized prior to the crisis by investigating committees. They were ignored. In this light, the final act —removal of the board—was inevitable.

The scandal will be cited by some as evidence of the weakness of school-board management of our public schools. It should be quickly pointed out that this is an isolated instance which received widespread publicity because it occurred in our largest city at the height of a heated political campaign. School-board members can point with pride to the fact that under our system, whereby a lay board of education is entrusted with responsibility for setting broad education policy and a professional staff is given authority to administer this policy, our schools have flourished as they have in no other country.

Some of the same weaknesses that were uncovered in New York may be practiced by other boards. Hopefully, a careful study of the New York crisis in a cold, impartial after-light may preclude recurrence of the same disastrous results elsewhere. •

• A HIGH-SCHOOL freshman's definition of tenure: "A law that says a school board can't get rid of a teacher for 10 years whether it likes him or not."—From *NEA Journal.*

• Morale, like salvation, in so many ways comes from above.—*Lawrence G. Derthick*, in address before the 1961 National School Boards convention.

• Compensation for school-board members is the exception rather than the rule.—*U.S. Office of Education.*

Sense or Nonsense?

The Objective Testing of English Composition

ORVILLE PALMER

In The English Journal

Orville Palmer is Editor of the College Board Programs for the Educational Testing Service, Princeton, New Jersey. Reported from The English Journal, *L* (*May 1961*), *314–20.*

IN the pages of *Commentary* magazine not long ago appeared an attack on objective English tests, written by an experienced and respected New York City English teacher.

The author of the article stated his position plainly and persuasively, charging the College Entrance Examination Board with exercising power in favor of objective testing. His position is one still widely held by English teachers.

I take strong issue with such views and shall state my own position.

It would be absurd, of course, to pretend there is not controversy; a running warfare between the proponents of objective and essay-type testing has been going on for four decades.

But the College Board's experience with English tests should be of interest to every English teacher for several reasons pertinent to this discussion. The Board has now been engaged in testing and research for 60 years. The Board has used objective (i.e. multiple-choice) tests for more than 30 years, and objective English tests for slightly more than a decade.

Over the past months the present writer has reviewed, as meticulously and dispassionately as possible, the many reports and studies, the analyses, and the examinations themselves which represent this long and cumulative activity in English testing.

What does this major contribution to English composition testing theory and practice state in essence? Essentially this: Sixty years of Board English testing have amply proved that essay tests are neither reliable nor valid, and that, whatever their faults, objective English tests *do* constitute a reliable and valid method of ascertaining student compositional ability.

Such a conclusion was painfully and reluctantly arrived at. It struck at the heart of beliefs cherished by the teaching profession, and especially the English teachers. It made a villian and a fraud of one of pedogogy's oldest servants and put in its place a testing device that asked the student to merely put marks on a sheet of paper, marks that would later be counted and tabulated by a soulless machine. Could there be virtues to such a testing monster? The College Board experience suggests that there may be at least seven virtues to well constructed, objective English tests.

SEVEN VIRTUES

A first, and elementary, virtue of any good objective English test is that the student's task is set out clearly and explicitly, and the student is given an adequate amount of time in which to work. This sounds so simple-minded that it may be wondered why it is mentioned here. The unfortunate truth is that it is one of the last things learned by English teachers. How many English teachers still ask a class "to discuss in detail" the life and works of a famous author—in 50 minutes?

A second virtue of the good objective English test is that it demands sound reasoning and thorough comprehension rather than a smattering of information, verbal glibness, and whatever it is that English teachers have in mind when they use the word *originality* or the phrase *original thinking*—which proves to be about the last thing one can expect to find in a student theme or examination booklet. How many essay tests elicit only shopworn cliches in halting basic English?

It may be felt that I am confused, for it is argued that objective English tests call only for facts and information, and that taking them is only a matter of picking choices. On the contrary, a good objective English test is anything but superficial. No *objective* College Board English Composition Test has ever required memory of a single "fact" or bit of information, although the Board English *essay* tests between 1901 and 1916 asked for little else. In 1916 the Board concluded that any test which could be answered adequately through a careful cramming of facts followed by responding with memorized information was a bad test.

A third virtue of standardized and nationally administered objective English tests is that they do not fluctuate in difficulty from year to year. By 1930 the Board realized the necessity for parallel English test forms, to avoid favoring candidates one year with an easy test, and penalizing other candidates the next with a difficult test.

A fourth virtue of good objective English tests is that they furnish a reliable score, a score far more reliable than any grade or mark derivable from an essay examination. The typical superficial, hasty marking of themes and essays is one of the most unfair and shabbiest aspects of that continuing scandal, the marking and grading systems of American schools.

There is a fifth virtue of objective English tests which has to do with student reliability, or more accurately, unreliability. English teachers know that there exists a great deal of variability in student writing from one theme to another and that even the most brilliant student may do well on one topic and badly on another. An objective test greatly reduces this inconsistency.

A sixth virtue of objective tests is that they are more valid than essay examinations—they correlate higher with such criterions as course grades in English and teachers' rating of student writing ability than do essay test scores.

By the late 1930's, College Board officers were thoroughly convinced that essay tests were not valid and not reliable. In 1947 the Board proved conclusively to itself that objective English tests are superior to essay tests from a measurement standpoint.

From 1947 until 1956, the Board concentrated on developing and refining tests of both types and administering experiments that resulted in these conclusions: matched against high-school course grades in English and teachers' estimates of students' writing ability, the General Composition Test (a carefully constructed two-hour essay test) ran a poor third to both the largely objective English Composition Test and the wholly objective (multiple choice) College Board Scholastic Aptitude Test (SAT-V).

The seventh virtue of objective tests is that they cost less to score than do essay tests. Many testing experts would agree that in the selection of a test, the cost of grading ought not to be a major or deciding factor. A good test should be worth whatever it costs to administer and grade, whatever its nature.

Since much has been said about the virtues and little about the shortcomings of objective tests, it should be added that most of the objective English tests in use today leave much to be desired. Unless a user is wise, he may very easily end up shortchanged in both scope and validity.

TESTS OF THE FUTURE

Nonetheless, it seems entirely probable that the next decades will bring us more and immeasurably better objective English tests. The tests of the future will possess a validity greater than any present test or test battery, basically because they will measure writing ability more directly than has been done up to now. The most recent College Board English Composition Tests might well become the prototype for such tests.

When all is said, to think in terms of an all-purpose English test is as absurd as an all-purpose cooking recipe. There should be rigorously designed and carefully developed objective and semi-objective English tests to fulfill specific functions.

It is all too easy to buy an inadequate, misfit test. It is pathetically easy to cobble together at the eleventh hour an even poorer and less useful one. It is time English teachers learned to recognize, use, and construct good tests of their own. •

Training Teachers for the New Mathematics

KENNETH E. BROWN and DANIEL W. SNADER

In Inservice Education of High School Mathematics Teachers

SPACE missiles are only symbols of the advance in scientific knowledge. A most important factor contributing to this advance is the revolutionary progress in development and use of mathematics. Not only are new requirements now being placed on mathematics in physics, chemistry, and engineering, but mathematics is being put to new and even more astonishing uses in other fields.

The biologist is applying mathematical theory to the study of inheritance; industry is using mathematics in scheduling production and distribution; the social scientist is using ideas from modern statistics; the psychologist is using mathematics of game theory.

Because of these new uses, mathematics is being firmly woven into the fabric of the national culture. The role of mathematics is not only to grind out answers to engineering problems, but to produce mathematical models (prototypes) that forecast the outcome of social trends and the behavorial changes of a group. Such important new uses require that students have a program of greater depth than the classical program designed for nineteenth-century education. The demands of society call for a thorough revision of our present secondary-school mathematics curriculum. The following is a brief listing of projects now underway that will influence that curriculum revision:

The School Mathematics Study Group (*SMSG*).—More than 100 college mathematicians and secondary-school teachers together have planned and written sample textbooks for grades 7 through 12. The texts have been tried out in many types of schools under competent teachers especially trained for this task.

The University of Illinois Committee on School Mathematics (*UICSM*).—Since 1951, the committee has carried on a program of study and experimentation in the

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improvement of school mathematics. Many schools have tried out the instructional materials and have assisted in their development. Materials include subject matter found in first-year algebra and plane geometry.

The Commission on Mathematics (CEEB).—This commission of the College Entrance Examination Board, established in 1955 and composed of mathematicians and high-school teachers, has made recommendations for major improvements in the secondary-school mathematics curriculum.

The University of Maryland Mathematics Project (UMMP).—The project thus far has concentrated on mathematics in the junior-high school.

Ball State Teachers College Mathematics Program.—This experimental program provides new materials in algebra and geometry.

Boston College Series.—Materials are being planned for grades 8 through 12. The emphasis is on the structure of mathematics approached from the historical point of view.

Secondary School Curriculum Committee.—The committee, under the direction of Frank B. Allen, was appointed by the National Council of Teachers of Mathematics to study the mathematics curriculum and instruction in secondary schools with relation to the needs of contemporary society.

Other Projects.—In addition, many local and state experiments and studies are underway. For example, a survey of a randomly selected sample of one-fifth of the public secondary schools reveals that 40 percent of the schools' administrators were planning to revise the mathematics curriculum.

CHANGES RECOMMENDED

A few of the changes recommended by these various groups are:

Include the elementary concepts and language of sets. Teach a more refined concept of function. Strengthen the logical development of geometry. Present in plane geometry some of the elements of analytic geometry and solid geometry. Modernize the vocabulary of elementary algebra. Study inequations as well as equations. Stress understanding rather than manipulation. Cultivate an understanding and appreciation of the structure of mathematics.

There is a growing realization that inservice education is a continuing need for all teachers if they are to remain abreast of new developments in subject matter and teaching methods. The University of Illinois Committee on School Mathematics attaches such importance to inservice education that until the time its materials were released (1959), it did not permit any teacher to participate in its project until the teacher acquired from two to eight weeks experience under the committee's supervision.

There are many ways in which school administrators are helping teachers to upgrade their professional competence. Some are described briefly below:

UPGRADING THE TEACHERS

Encourage teachers to study books on modern mathematics. A teachers' reading and conference room with books on modern mathematics and the new course materials is desirable.

Develop a cooperative inservice program between the public schools and a nearby college or university.

Provide funds to pay teachers to work on curriculum materials during the summer months.

Encourage teachers to visit classes in schools where the new materials are being used. Substitute teachers should be provided by the administration.

Set up salary schedules which provide appropriate increases for teachers who complete additional college courses in the subject matter of their teaching field. Make provisions in the regular school budget for financing a continuous inservice education program.

Arrange the school schedule to allow teachers, on released time, to participate in seminars, curriculum study groups, professional organization meetings, and teacher inservice programs.

Encourage local industrial organizations and philanthropic agencies to sponsor inservice education programs. Example: The Timken Roller Bearing Co. at Canton, Ohio, paid 50 percent of the expenses incurred by local mathematics teachers attending college summer sessions.

Encourage mathematics teachers to join professional organizations, both in math and in general education.

Encourage teachers to take an active part in experimental mathematics programs.

Organize a mathematics-curriculum study committee consisting of teachers from various grade levels. This would help to provide continuous development of basic unifying concepts of mathematics. Engage qualified consultants to assist the curriculum study committee in their study of the school's total mathematics program.

Encourage development of appropriate correspondence courses in mathematics for teachers. Each state department of education may assist one or more of the colleges in the state to develop such courses cooperatively. •

The New Mathematics?

A SIX-YEAR-OLD, just introduced to subtraction in school, turned to her grandmother, who was visiting her, and said, "We are now a family of five, but when you go home, we will only be four. You are the 'take-away.' "—From *The Christian Science Monitor.*

Their Stories Tell Their Feelings

Problems of Highly Creative Children

E. PAUL TORRENCE

In The Gifted Child Quarterly

E. Paul Torrence is Director, Bureau of Educational Research, University of Minnesota, Minneapolis. Reported from The Gifted Child Quarterly, *V (Summer 1961), 31–34.*

INESCAPABLY, the individual who thinks of a new idea is, in the very beginning, a minority of one. Since creativity involves independence of mind, nonconformity to group pressures, or breaking out of the mold, it is inevitable that highly creative children experience some unusual problems of adjustment.

The highly creative child must either repress his creativity or learn to cope with the tensions which arise from being frequently a minority of one. Repression of creative needs may lead to personality breakdowns. Their expression frequently leads to loneliness, conflicts, and other problems of adjustment. Educators of gifted children need to understand these problems.

It is important to the educator that he understand the way children see society's sanctions against divergency. One of our studies furnished us with many insights in this respect. We asked 5,000 children in grades 3 through 6 to write imaginative stories concerning animals or persons with some divergent characteristic. One story written by a sixth-grade girl will illustrate this.

The protagonist was a flying monkey named "Pepper." Well-educated and unusual in that he ate peppers rather than bananas, Pepper was an individual to the point that he made a decision to go to America, which was unheard of in his society. In America, Pepper found himself an object of scorn and ridicule and wound up in a zoo cage. The story continues:

> Now Pepper was sad. He didn't like the cage they put him in. He made a vow that if he ever got out he would never be different again and 10 minutes later he saw some bent bars big enough to fly through . . . and in two days was back in the jungle. He kept his promise too. He was never different again. He was a good little flying monkey.

It would be safe to assume that Pepper also ate his bananas.

About two-thirds of the stories tell similar tales of conformity or of destruction. However, some cultures are more indulgent of divergency than others. In stories written by gifted children in special classes, the flying monkey is in some way able to persist in his flying in about 70 percent of the stories. Stories written by children in a small town populated with Indians, Whites, and a few Negroes also reflect this tolerance. The flying monkey succeeds in about 74 percent of the stories.

Another area that demands understanding by those working with gifted children is that these children are not always the well-rounded all-American types. The highly creative child is likely to have lagged in some phase of his development. Verbal abilities frequently will be below some of their other abilities.

Our society places high value on verbal skills and tremendous pressures are exerted on children to excel in this respect. The relentlessness of these pressures is symbolized in a story written by one of these children.

The plot dealt with the problems of a duck named Glob-Blob, who could not quack. Glob-Blob's life was made miserable by quackers of the Ladies Duck Aid Society who pursued him relentlessly, determined to beat into him an ability to quack. Finally, they succeeded in beating him to death.

> . . . "That's life," Glob-Blob said to himself as, slowly but surely, failing, he dropped to the ground. The quackers, very pleased with themselves, sat down for a chat.

Many children must consider their counselors, teachers, and parents as "quackers" when we work so hard to make them become "better rounded personalities."

Another point that needs some attention and understanding is that many creative children prefer to work and learn on their own. Schools have been slow in providing such opportunities.

Last year we conducted a study and found that children would do a great deal of writing on their own, if properly motivated. In another study we found that gifted children in a split-shift school showed more growth in language development, science, and social studies than under a full-day schedule. I have seen learning situations "accidentally" left "open" a sufficient number of times to feel excited about what would happen if we should do so more frequently.

ATTEMPT HARD TASKS

Highly creative children have a strong desire to move far ahead of their classmates in some areas. They like to attempt difficult tasks, and they make us afraid that they are not "ready." A frequent theme in our imaginative stories is related to this problem. The young animal or fowl asks, "When can I roar? When can I crow? When can I fly?" Almost always the answer is, "When you are a little older." We are always afraid that the young one might not be ready to learn and would be forever scarred by even a temporary failure.

A common experience in the lives of many outstanding individuals has been their ability to cope with failure and frustration. Had they not attempted difficult tasks, it is likely that their great ideas would not have been born. Fortunately, educators of gifted children are revising their concepts about what can be taught at various levels of education.

It is often said of outstanding creative achievers that they seemed to be possessed by a purpose and were "men of destiny." Creative children are searching for and do need a purpose worthy of the enthusiastic devotion they are capable of giving. Some of this need is portrayed in another story. It is an account of a monkey who didn't know what, who, or why he was. He identified with, and thought of himself as, the airplanes that flew over the jungle habitat. He even named himself, "Buzz."

> Now we all know that monkeys can't fly, but he didn't know this. Why he didn't even know that he was a monkey, so he kept trying and trying—and you know what? He flew!

The above may have implications concerning the need for helping children discover their potentialities and for helping them achieve their selfconcepts creatively rather than by authority.

Counselors and teachers may become irritated with children who seem to create problems for themselves by trying consciously to be different—searching for their uniqueness. One authority maintains that creative individuals reject the demands of their society to surrender their individuality because "they want to own themselves totally and because they perceive a shortsightedness in the claim of society that all its members should adapt themselves to a norm for a given time and place."

One way in which the creative individual searches for his uniqueness is through his vocational choice. A recent study found that the highly creative responded with a greater number of different occupations, and more unusual or rare occupations, than did the highly intelligent subjects. Attitudes toward adult success were also different, the highly creative being less concerned with conventional standards.

In no group thus far studied have we failed to find clear evidence of the operations of pressures against the most creative members of the group, though they do vary widely in degree of severity.

In each classroom, three characteristics stand out as identifying the highly creative children: There is a tendency for them to gain a reputation for having wild or silly ideas. (Their teachers and their peers agree on this.) Their work is characterized by its productivity of ideas "off the beaten track." (This explains one difficulty of teachers and peers in evaluating their ideas and perhaps why the creative show up no better than they do on traditional intelligence tests.) And, the highly creative are characterized by humor and playfulness. All these characteristics help explain both the psychological estrangement and the creativity. •

The Rutgers Plan for Teaching English

Divide the Load, Multiply the Learning

EDGAR LOGAN

In Saturday Review

THERE is an impending crisis in high-school English teaching, growing out of the teacher shortage, the population explosion, and the fact that the teachers now are laboring under an almost impossible burden.

By 1965 there will be half again as many students in high school as there are now. English will be particularly hard hit for three reasons: First, everybody takes English. Second, the proportion of English majors in college has been declining for 10 years, meaning the shortage of English teachers will become more severe. And third, colleges will have to reject or flunk out a larger proportion of applicants in the sixties, with the reason to be given for the majority of rejections being, "weak in English." Angry parents will, therefore, question every aspect of high-school English teaching.

Already the North Central Association is trying to hold the line at 170 students per English teacher—and is failing. Estimates are that by 1970 most English teachers will be meeting more than 200 students per day.

Unless something drastic is done about it, the average high-school student will write only four or five compositions per year. This is not enough to prepare students for college English. Practically all authorities agree that students need to write a theme each week. However, to correct and grade 200 papers a week, at the best rate that good teachers are able to maintain, would take 33 hours, according to the Educational Testing Service. In order to get through just one writing assignment, teachers would have to read papers every school night from nine until midnight, plus nine hours on Saturday and nine on Sunday. Imagine the disposition of the teacher as he faces his Monday classes with another gruelling 60 hours ahead!

An obvious solution might appear to be reducing the English teacher's load to four classes per day with no more than 25 students in each class. But the National

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Council of English Teachers has been campaigning for this reduction for 30 years with little success.

Superintendent Benjamin C. Willis of Chicago listened patiently to Dr. Conant's recent arguments for thus limiting the English teacher's load. His reply: "I'd like to do it, but it would cost Chicago an additional $2 million a year. If I had the $2 million, I could not get the teachers. And if, by some miracle, I got the teachers, I could not get the classrooms. What's the next best thing?"

In my opinion, the next best thing is the Rutgers Plan for cutting class size in half. It is called the Rutgers Plan because high-school teachers thought of it at Rutgers University; it has no other connection with that institution.

In the summer of 1959, 63 outstanding high-school English teachers from all parts of the country attended a six-weeks institute at Rutgers. One year later, the boards of education in both Chicago and Detroit each sent 20 teachers to a second six-weeks institute at the university. Under the direction of Dr. Paul B. Diederich, research associate in the Educational Testing Service, the teachers evolved a plan whereby:

No high-school English teacher need ever meet more than 20 to 25 students at a time, except by his own choice.

Every high-school English teacher may have one day a week completely free of class duties to see students who are either so far ahead or so far behind that they require individual attention.

English classes will ordinarily meet two days a week, one for class discussion of books that have been read in common, the other for class discussion of student papers.

Two days a week will be used for "free reading," probably in temporary buildings designed for that purpose, directed by teams of college-educated housewives ("free reading aides") who will be on duty not more than three hours a day, at about $2 per hour.

One day a week will be devoted to a test and follow-up of self-corrected homework. There will be exercises that tell the student immediately whether his responses are right or wrong. These tests will be administered by other college-educated and specially trained women working on a part-time basis.

A composition will be assigned every week, but three out of every four will be corrected and graded by a "lay reader." The reader is a college-trained woman who will read the papers at home and receive about $.25 for each paper. The teacher will read one-fourth of the papers and check enough of the others to keep in touch with the progress of the class.

HOW THE PLAN WORKS

Here's how the experiment is expected to work.

Each of the classes normally assigned to each teacher will be split into two sections, *A* and *B*, on any basis that the teacher prefers. Section *A* will meet with the regular English teacher on Monday and Wednesday, while section *B* has "free reading." Section *B* will have its class discussion of books and papers on Tuesday and Thursday, while section *A* has "free reading." On Friday both sections will report to the "testing room" for a test on the selfcorrecting homework assigned for the week and for class discussion of items that give trouble. On this day the English teacher will be free to see students needing individual attention.

The Rutgers plan poses the following four questions and has been given three years by the Ford Foundation to answer them:

Can students learn the fundamentals of English through self-correcting programed exercises?

Can students increase their appreciation and understanding of literature, and subsequently have the increase reflected in their written and oral expression, through extensive individual reading programs?

Can students benefit by writing two or three times as many compositions as they now write in "regular" English classes?

Can college-trained community housewives be successful aides to the English teachers?

It is this last point of the Rutgers plan that has provoked controversy. Critics insist that the professional status of English teachers will be lowered by having part of their duties taken over by "untrained" people. But all the people assisting the teacher under the Rutgers Plan will have college backgrounds, and will have taken stiff exams on every aspect of their language skills before they are hired.

Dr. Diederich argues that "while it is true that evaluating and correcting the work of students is part of the teacher's function, no other trade or profession bars *assistance* in performing a function if that assistance is supervised by a responsible person."

Lawyers, doctors, and the research persons all use assistants. Similarly in the Rutgers Plan the assistants *assist* the teacher but are never in control of a class, and the teacher never surrenders his responsibility.

Without the three types of part-time assistants proposed, or at least two of them—readers and book aides—the teaching of English in the late sixties may well become a nightmare. ●

THE high-school student, carried away with his own rhetoric in the story of the launching of a carrier, wound up his theme: "Miss Smith smashed a bottle of champagne against the bow of the USS Missouri with unerring aim, and then, while the huge crowd cheered madly, she slid majestically down the greasy ways into the sea."—From *Texas Outlook*.

The Demise/Vitality of the Homeroom

CLEMENT E. VONTRESS and J. POPE DYER

In The Clearing House

Demise—C. E. Vontress

THE homeroom has outlived its usefulness. Dating back to Colonial days when students used it as a general assembly room, it is still a center of discipline where all a student does is arrive, sit, and listen, his only vocal responsibility being to answer to his name.

Instead of devising ways to dispense with this relic, administrators devote time and energy justifying its existence. These justifications are centered around two broad rationales – administrative routines and guidance exigencies. Administrative routines include reading announcements, taking attendance, distributing and collecting report cards, making student schedules, and maintaining a multiplicity of administrative records.

The following guidance activities are said to take place in the homeroom: planning educational programs and class schedules; supplementing the curriculum in personality and character development, citizenship, parliamentary procedure, and study habits; assisting in vocational guidance; organizing activities in democratic procedures; undertaking character development through extracurricular activities; and familiarizing students with community agents.

Albeit the reasons given in favor of the homeroom are many, they do overlap and contradict each other. Many of the values mentioned are trivial and of doubtful relevance to the task of the school. The functions referred to as administrative procedures are necessary and important, but isn't there a plan more effective and efficient than the homeroom?

Homerooms are ineffective for guidance purposes. Counseling has become a specialized area, not to be dabbled in by well-meaning, although often overworked and sometimes debilitating, do-gooders. To achieve what is apparently expected, one must believe that all

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teachers are guidance experts, because all teachers are assigned homeroom duties indiscriminately. The philosophy of the homeroom as a guidance technique is understandable; implementation of such a design is near impossible. At its best, it is an administrative catchall; at its worst, a records junk room.

An alternate plan for administrative routines may include a public address system, enabling announcements to be made from a central location. If there is not a PA system, announcements can be made during an extended class period, at which time attendance can also be taken. The clerical staff can address report cards and distribute them to the first-period teachers. The cards can be returned to the first-period teachers, who would check them for parents' signatures and return them to the records office. All other personnel data should be kept by a trained staff. Attendance taking and other routine matters may be taken care of by the first-period teacher.

Group guidance in small high schools can be achieved by weekly meetings with trained counselors. In the larger school, the guidance program should be organized necessarily on a larger scale.

Every classroom or club activity is a human relations laboratory, and as such requires the sensitivity of one schooled in group procedures. No teacher can be excused from this responsibility. The development of desirable character traits should be an objective of all classes, not just the homeroom. In every group setting, each individual should have a sense of belonging. The classroom provides a natural grouping. Why, then, is it necessary to provide a homeroom for this purpose?

Vitality—J. P. Dyer

THE key to a successful school program is a successful and well-organized homeroom.

In every homeroom, from 20 to 50 students are with one teacher. The homeroom teacher is a counselor and friend, a companion and adviser to these students and can do much to reduce absences, to retain potential dropouts, and to motivate students so that they may both complete high school and continue through college.

There are numerous activities outside of regular course work found in most schools today. The homeroom teacher's ability to organize and popularize any given movement or project determines the degree of success of the given project. The plays, games, and drives, etc., must be presented to the students. They cooperate only when the teacher lends her interest and enthusiasm to a given activity.

The homeroom teacher of today must be as skillful in organizing as the typical political boss in a metropolitan area. She must be as wise as the most experienced judge. She must be as impartial as an arbitrator of a dispute. She must be as humorous as a nationally recognized comedian. Yes, the enthusiasm, preparation, and versatility of the homeroom teacher are shown each day by the results she achieves in the numerous activities with which she deals.

The homeroom is a place of leadership training. It is a place where the service attitude can be conveniently instilled. It is the area where students demonstrate their limited or superior qualities. Frequently, a good leader of a homeroom receives almost all of the votes of his fellow students for a school honor. Fellow students tell their friends of other classes about the outstanding leadership of a classmate.

The homeroom teacher must be a guide in all these facets of education. She must not be a dictator. The inconspicuous leadership of the teacher will bring cooperation and success from the students. Students must be given freedom under the skillful guidance of the teacher in the homeroom. This will insure successful completion of projects and a wholesome atmosphere of cooperation in the work.

I repeat, the homeroom is the key to a successful school. •

Excuses, Excuses

• Absentee excuses: 1860—Dear Teacher: Please excuse Mary for absence from school yesterday. It was her brother's turn to wear the shoes.

1900—Dear Professor: John missed school today because the horse succumbed to an attack of glanders.

1910—Dear Principal: Jane was absent yesterday because her father broke his arm cranking the Ford.

1950—Dear Superintendent: Willie overslept and the school bus wouldn't wait for him.

1965—Dear Announcer: Karen missed her lesson today because the TV tube blew out.—Frederick J. Moffitt in *The Nation's Schools.*

• Administrative excuses: A superintendent recently tacked the following notice on his faculty bulletin board: "To save time, please give your excuse to me by number: (1) That's the way we've always done it; (2) I didn't know you were in a hurry for that; (3) That's not in my department; (4) No one told me to go ahead.—From *Mississippi Educational Advance.*

• Youngster excuses: A mail-order firm recently received a note from a nine-year-old boy which said: "Owing to the pressures of modern life, I find I have no time for my hobby. Please discontinue sending stamps."—From *Christian Science Monitor.*

Report of a Study

Are Youngsters Better Readers Today?

ARTHUR I. GATES

In Reading Attainment In Elementary Schools: 1957 and 1937

CERTAIN critics of education declare that today's youngsters, at all educational levels, do not read as well as the youth of a generation ago. The evidence presented is typically negligible, usually a subjective opinion based on casual observations of a limited population, and likely to be unreliable.

Studies in which objective tests of reading ability have been given to two generations of pupils in the same community have revealed, almost without exception, that children in schools during the 1950's read better than children attending school two or more decades earlier.

This report is on a study that compared the reading attainments of a large group of children tested in 1957, in developing norms for the four batteries of the Gates Reading Tests, with those measured for a similar purpose 20 years earlier.

The norms for 1937 were based on a school population of approximately 107,000 children; those for 1957 on about 31,000, each of whom was given two or more tests. At both times, the pupils tested as the "standardized population" were selected to be geographically, economically, intellectually, and educationally representative of the United States at large.

The first major finding is that in the range from grades 2 through 6, the 1937 children at a particular grade level demonstrated more advanced reading abilities than did the comparable 1957 children. The difference is small and variable during grade 2, and more stable and reliable during grade 3, where the average difference is about 0.1 of a grade. It increases gradually from the beginning of grade 4 to the end of grade 6, varying from test to test but averaging about 0.15 of a grade in grade 4, about 0.25 of a grade in grade 5, and 0.3 of a grade in grade 6.

However, such a comparison

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does not tell the whole story. There are a number of differences between the school populations and policies of 1957 and those of 1937. One, the difference of chronological age, is of outstanding importance.

Except for the early part of grade 1, the 1957 children were, at a particular grade position, *younger* than those of the 1937 group. When the children of the 1957 group are compared with the 1937 pupils of the same chronological age, it is found that the 1957 children are superior in reading ability. When children of the same age in the range from 7-6 to 8-1 are compared, the 1957 children show a superiority of a month or a month and a half in reading ability. When children in the range from grades 4 to 6.5 are compared on the basis of age, the 1957 children reached a particular level of reading ability, on the average, about 5.3 months earlier than did the 1937 children.

The statements above are based on the averages of all the tests.

An analysis of the many factors involved in a comparison of reading ability at different times suggests that it is nearly impossible to determine exactly how much greater the reading abilities of today's pupils are than those of pupils of exactly the same age, intelligence, and general scholastic competence in the schools of 20 years ago.

In the present study, a number of variables arose which could not be controlled precisely or entirely. For example, the size of the average class, the amount and grade distribution of nonpromotions of poor learners, and the number, kind, and grade distribution of pupils leaving school. Furthermore, we cannot be sure that the standardization group of 1957 was identical with the 1937 group. This writer believes, however, that the earlier population was at least equal to, indeed, probably superior to, the latter standardization group in intelligence or scholastic ability.

When a reasonable estimate of all factors is made, it seems to this writer that the superiority of the reading ability of today's children over that of equivalent children of a generation ago would be greater, rather than less, than this investigation revealed. In this writer's view, a conservative estimate is that today's children achieve, after five years attendance in elementary schools, a level of reading ability that is better than a half year in advance of pupils of equivalent intelligence, age, and other related factors 20 years ago.

DIFFERENCES REVEALED

This study reveals certain differences between school practices of today and those of yesterday which could lead both laymen and teachers to assume erroneously that yesterday's schools produced greater reading ability. If one considered *only* the grade position, one would justifiably conclude that yesterday's youngsters were superior. The important finding is that the fifth grade of yesterday is not the same as the fifth grade of today. Today's fifth grade contains children who would never have reached the fifth grade 20 or more years ago; some would have dropped out of school earlier and others would have been retained in lower grades.

Since there is no doubt that more of the poorest pupils were refused promotion and more of them left school 20 years ago than do today, it is certain that *grade* comparisons put today's schools at a great disadvantage. Obviously, a simple way to make a school grade group look better is to hold up promotion to it of a few of the poorest pupils. If one can increase the average reading grade of a typical class of 26 pupils by nearly a fifth of a school year by holding back in a lower grade merely the scholastically poorest pupil, or a third by not promoting the two poorest, and a half school year by retaining the three poorest pupils, one could make all present-day American schools look very much better by reintroducing the strict policy of not promoting the pupils of lowest academic attainment.

Another reason why the fifth grade of yesterday is not the same as the fifth grade of today is that today's fifth grade consists of pupils who are, on the average, eight to nine months younger than the fifth grader of 20 years ago. This difference alone affects a grade average greatly—always to the disadvantage of today's pupils in a grade-by-grade comparison. A typical class at grade 5.25 (one which has completed the first quarter of the fifth grade) in today's school would, in 1935, not have been a fifth-grade class at all; it would have been a fourth-grade class at about mid-year or a shade beyond.

The fact is that today's youngsters from 10 to 12 years of age are clearly better readers than were those of the same age and equivalent intelligence a quarter of a century ago. •

• THERE is only one situation I can think of in which men and women make an effort to read better than they usually do. When they are in love and reading a love letter, they read for all they are worth. They read every word three ways; they read between the lines and in the margins . . . They may even take the punctuation into account. Then, if never before or after, they read.—*Mortimer J. Adler.*

• THERE is no reason to make either books or education easy, any more than tennis or football is easy. Like sports, they require a certain amount of hard work and practice, and, like sports, they can be both a challenge and a delight.—*Gilbert W. Chapman.*

Statistics for Selected Secondary-School Students

CHARLES M. BRIDGES, JR.

In The Mathematics Teacher

IN this period of study and redesign of the secondary-school curriculum, one of the areas of mathematics receiving some attention is that of statistical analysis of data.

Before new subject matter is interjected into the curriculum, some knowledge of the limits of achievement for apt secondary-school students is necessary. In accordance with this concept, a course in statistics was formulated and then taught to a group of apt students. This paper is concerned primarily with a description of the course of study followed during this one-semester period of instruction.

The first hours of the course were spent discussing various components of a statistical investigation —continuous, discrete, qualitative, and quantitative variables; population and sample; types of descriptive techniques, including histograms, frequency polygons, cumulative frequency polygons, and ogives. Distinction was made between a continuous distribution and a discrete distribution.

The second major area was concerned with the measures of central tendency and dispersion. In discussion of the measures of central tendency—mean, median, mode —these factors were presented as one means of locating a distribution within the continuum of the number system. The measures of dispersion—variance and standard deviation—were approached through use of the *least-squares technique*. The discussion was limited by the mathematical background of the students, notably the lack of calculus. The measures of dispersion were presented as further ways of describing a distribution of variables. When appropriate, students were told to code data for ease in computation.

As an introduction to types of frequency distributions, it was thought necessary to present some of the fundamentals of elementary probability. Within this area, these concepts were developed: the probability of the occurrence of a single event; the idea of sample space; the addition and multiplication rules; combinations; and permutations.

Following the discussion of some

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of the simpler forms of probability (dice, coins, etc., were used), the discrete distribution functions—binomial, Poisson, hypergeometric—were discussed. The conditions under which each of these functions was applicable were pointed out.

The normal population and the normal distribution were presented next. The normal distributions of separate values and sample means were treated. The students were asked to carry out certain exercises related to determining the probability of the occurrence of a range of values as well as a range of sample means in a given normal distribution.

Subsequent to preliminary work, the students were given their introduction to the concept of statistical inference. The thought of making a statement concerning the probability of the occurrence of a sample mean within a given hypothesized population was developed. The students were presented with the following procedure for setting up the solution of problems involving the testing of hypotheses:

Statement of the problem or question of concern.

Statement of the statistical null hypothesis.

Statement of the level of significance and the placement of this probability.

Statement of the critical regions.

Computation of the critical regions.

Action with respect to the test hypothesis (i.e., accept or reject the hypothesis on the basis of the data).

The testing of hypotheses for single population proportions or percentages was also discussed at this time, and it was pointed out that this technique is used in industrial testing in terms of defective parts or merchandise.

After completion of the discussion pertaining to the testing of hypotheses for single population parameters, the methods for testing hypotheses concerning the equality of two population parameters were presented. The testing of hypotheses for paired or correlated data was also presented at this time.

As the course progressed, the students were introduced to the chi-square distribution as used in testing hypotheses concerning the equivalence of two or more population proportions. In addition, the chi-square distribution, or a modification thereof, was used in tests for independence of data, tests for goodness-of-fit, and tests of hypotheses concerning a single variance and the estimation of the population variance.

A total of 80 hours was devoted to presenting the students with information. Thirty hours were given to the area of tests of hypotheses.

Careful consideration of the test results, as well as evaluation of statistical research projects carried out by each student, revealed that apt secondary-school students *are* able to apply principles of statistical inference. •

★ With Education in Washington ★

THE EDUCATION DIGEST WASHINGTON BUREAU

General Aid Dead?—The two-year extension of federal aid to "impacted areas" and the National Defense Education Act seemed to postpone Congressional action on general aid to education until after the 1962 elections. HEW Secretary Abraham Ribicoff is campaigning intensively, however, to build public support for the legislation, and it must be remembered that the President's proposals are still technically before Congress.

In accordance with parliamentary procedures, the Senate-passed bill authorizing $2.5 billion for public-school construction and teachers' salaries over a three-year period is still before the House, which could act on it next year. The House is not likely to do so, but the possibility remains.

Secretary Ribicoff is said to be stung by newspaper editorials charging that this year's legislative defeat was due to lack of leadership by the Administration. In a series of speeches to influential professional and lay audiences, his rebuttal has been that public indifference is at fault, compounded by organizational insistence on specialized viewpoints and programs instead of general support for education as a whole.

"How many of you have had lunch with your Congressman recently to discuss with him the tremendous importance of education to our national development and survival?" he asked the annual meeting of the American Council on Education. "I won't shame you by asking for a show of hands."

The Department of Labor's Bureau of Labor Statistics furnished proponents of federal aid fresh ammunition to use while unemployment remains high. Building each new school generates an average of 81 man-years of work, the BLS found, 38 directly in construction and 43 in indirect but related activities. Details are in BLS Bulletin No. 1299, "Labor Requirements for School Construction," which is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C., for 35c.

Special Aid Voted.—By extending the NDEA and aid to "impacted areas," Congress again demonstrated its preference for specialized rather than general support of education. In the recent session, too, three measures were enacted that will provide aid for the exceptional school child.

The expanded juvenile delinquency program which the Childrens Bureau has proposed for several years was finally authorized. The program will include research and demonstration project grants, training of specialized personnel, and consultative services. Of the $10 million authorized, Congress appropriated $8.2 million for the first year of the three-year program.

The 81-year-old law providing federal support for the American Printing House for the Blind was amended to remove the limit on annual appropriations for Braille and other tangible teaching materials. With rising costs and more blind children to educate, the ceiling on federal funds has meant a steadily decreasing amount available per student. Last year the limit, $410,000, was voted for the Printing House; this year the federal aid will total $680,000.

A two-year program to expand the number of trained teachers of the deaf was enacted, and $1.5 million, the full amount authorized, was voted for the first year. The funds will be used for scholarships and grants to the training institutions. In addition, Congress increased funds for the Office of Vocational Rehabilitation's program of training speech and hearing specialists who serve both children and adults. Last year $680,000 was available; this year over $900,000 was voted.

It should also not go unnoticed that Congress has extended the practical-nurse training program until 1965 without altering the annual $5 million appropriation.

Desegregation Report.—"The nation's progress in removing the stultifying effects of segregation in the public schools—North, South, East and West—is slow indeed," is the conclusion of the U.S. Commission on Civil Rights in the education section of its 1961 report. "In the North, no laws explicitly require or permit segregation by race in the public schools. Yet segregation of Negroes, Mexican-Americans, and Puerto Ricans is not uncommon," the Commission found.

The five-man Commission, whose life has been extended by Congress for an additional two years, therefore recommended a dozen specific forms of federal action to speed desegregation.

The Commission recommended that Congress require every local school board still practicing segregation to file within six months a plan for "at least a first step toward compliance with the Supreme Court's decision . . ." Congress was also asked to revise the federal grants-in-aid for public-school educational programs to halve the funds provided to states where no school districts have desegregated (Alabama, Mississippi, and South Carolina). States that have not yet achieved full desegregation would receive between 50 percent and 100 percent of their allotted grant funds, depending on their degree of desegregation.

The latter was the only recommendation that was not unanimous. Prof. Robert S. Rankin, chairman of the political science department at Duke University, dissented because he believed the recommendation to be "unnecessary and potentially punitive."

Congress was also asked to adopt measures to speed court consideration of desegregation cases and to authorize 50-50 matching grants and technical assistance to school districts or citizen groups attempting to solve problems arising from desegregation. Legislation was also recommended to authorize loans to school districts losing state or local aid or borrowing authority because of desegregation.

Both the President and Congress were called on to direct the Commission to serve as a clearing house for information on desegregation and to initiate an advisory and conciliation service to assist local school officials. Both were also asked to direct the Attorney General to protect board members, school officials, teachers, students, parents, and citizens involved in compliance with desegregation plans.

The President was asked to order a survey of the public schools attended by dependents of military personnel living on or near their duty station. After the survey, the Commissioner of Education would be directed to "make suitable arrangements for their education in public schools or on-base schools open to all dependents without discrimination because of color or race."

Operation of the Library Services Act, which provides federal grants-in-aid for promotion of rural library service, was weighed by the Commission and found wanting. Some public libraries in the 17 southern states are not serving Negroes, and others offer separate but unequal service and facilities. Hence the Commission recommended study of the situation by the HEW Secretary and ultimately refusal of federal funds to "libraries not serving all residents of the community or not serving all of them in a manner consonant with constitutional principles."

The Commission's report described a number of programs intended to eliminate educational handicaps resulting from segregation, including the Phelps-Stokes project, the Banneker Group program, New York City's "Higher Horizons" effort, and the Greater Cities-Grey Area program. It recommended that the federal government "sponsor" similar programs on request of one or more states.

"Some of these measures have accompanied or followed desegregation; others have preceded it," the Commission reported. "All indicate that there are ways to adjust the operation of a public-school system to constitutional requirements while continuing to improve the quality of public education for all children."

Higher education was the subject of a report by the Commission in January. One recommendation of the previous report was reiterated: that the federal government take steps to disburse funds only to publicly-controlled colleges and universities that do not discriminate. Four Commissioners believe this policy should be extended to privately-controlled institutions.

To measure the progress of desegregation, the federal government should conduct an annual school census, the Commission believes. This recommendation was also made in 1959. The Commission again took pains to emphasize that "this recommendation does *not* contemplate the establishment of school records by race or ethnic classification. The trend toward the elimination of such identification on student records should, in fact, be accelerated."

"Education, 1961 U.S. Commission on Civil Rights Report No. 2" will be sold by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. The price has not been announced.

Caroline's Nursery School.—Caroline Kennedy, the President's 3½-year-old daughter, missed the opening month of the cooperative nursery school that now meets in the playroom on the third floor of the White House and on the South Lawn. The First Lady kept the Kennedy children in New England until mid-October so they could enjoy "the best weather of the year."

The White House nursery school enrols 12 children. "I've never known the names of the children, their color, or their religion," says the Presidential press secretary, Pierre Salinger. The children, all three- and four-year-olds, come to the White House three mornings a week, and their mothers take turns helping the two teachers. Equipment and materials were purchased by the parents.

Mrs. Jaclin (Jackie) Landau Marlin is director of the little school. A graduate of Bryn Mawr (1953) and the Harvard Graduate School of Education (1954), Mrs. Marlin was pre-school director of the Harvard Graduate School for the past two years. She came to Washington last summer after her marriage and was offered the White House post on the basis of background and recommendations, having never met Mrs. Kennedy previously.

Mrs. Marlin is assisted by Mrs. Richard H. Mayfield, who was graduated from Bryn Mawr in 1946 and the Bank Street College of Education in 1947. Mrs. Mayfield established the White House nursery school last April.

Language Labs.—Careful planning is necessary if a high school is to get the most out of electromechanical equipment in teaching a foreign language, a recent USOE study emphasizes.

Use of such equipment, particularly language laboratories, has increased sharply since the passage of the NDEA. The study points out that only 64 language laboratories were used in high schools in 1958, but the number had risen to more than 2,500 in 1961.

Multiplication of language laboratories will do little good, however, the study cautions, unless the teacher is trained to use them effectively.

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• Educational News •

CHANGES IN SUPERINTENDENCIES:

Little Rock, Ark.: **Floyd W. Parsons,** formerly of Big Springs, Tex., has succeeded **Terrell E. Powell,** temporary superintendent, who has returned to his position as principal of Hall High School, Little Rock.

Duquesne, Pa.: **H. S. Konvolinka** has retired to become education advisor to the Ministry of Education in Liberia.

Los Angeles, Calif.: **Ellis A. Jarvis** has announced his retirement, effective Jan. 1, 1962.

New Bedford, Mass.: **James R. Hayden,** formerly assistant superintendent, has succeeded **Ruth B. McFadden,** retired.

New Brunswick, N.J.: **William Manze,** formerly of Bridgeton, N.J., is now superintendent.

Oakland, Calif.: **Selmer H. Berg** has announced his retirement in June 1962.

COLLEGE PRESIDENTS:

Barnard College, Columbia University, New York: **Rosemary Park,** president of Connecticut College, New London, has been named successor to **Millicent Carey McIntosh,** who will retire in June.

New York University, N.Y.: **Carroll V. Newsom** has resigned, effective Jan. 1, to become vice-president of Prentice-Hall publishing firm.

Louisiana State University, Baton Rouge: **John A. Hunter,** dean of student services, will succeed **Troy A. Middleton** on his retirement in February.

Teachers College, Columbia University, New York: **Hollis L. Caswell** has announced his retirement, effective July 1, 1962. He will assume a new professorship established in honor of Marshall Field, Jr., at the college.

University of Rochester, N.Y.: **Cornelis W. de Kiewiet,** president since 1951, has resigned and has joined the staff of the American Council on Education as consultant.

Lehigh University, Bethlehem, Pa.: **Harvey A. Neville,** formerly vice-president and provost, has been named successor to the late **Martin D. Whitaker.**

TEACHER-TRAINING INSTITUTIONS:

Temple University, Philadelphia, Pa.: **James J. Jones,** formerly of the University of Miami, Coral Gables, Fla., is now professor of educational administration.

Texas Western College, El Paso: **William H. Fisher,** formerly superintendent at Las Vegas, N.M., is now associate professor of education.

Michigan State University, East Lansing: **Jack M. Ryder,** formerly superintendent at Cassopolis, Mich., is now assistant instructor in school administration.

University of Nebraska, Lincoln: **Howard Eckel,** formerly at the University of Kentucky, Lexington, is now professor of school administration.

Stanford University, Palo Alto, Calif.: **Norman J. Boyan,** formerly at the University of Wisconsin, Madison, is now associate professor of education.

College of Education at Albany, N.Y.: **Ward I. Edinger,** formerly superintendent of Jamesville-DeWitt Central School District 11, DeWitt, N.Y., is now professor of educational administration.

University of Delaware, Newark: **Roy M. Hall,** formerly chairman of the department of instruction and curriculum, University of Texas, Austin, has been appointed dean of the school of education, effective Feb. 1, 1962. He succeeds **William O. Penrose,** resigned.

Marycrest College, Davenport, Ia.: **Carl G. Franzen,** professor emeritus of education, Indiana University, has accepted a two-year appointment as head of the department of education.

Idaho State College, Pocatello: **John H. Swenson,** formerly assistant commissioner, Colorado state department of education, is now head of the department of education.

University of Detroit, Mich.: **James H. Hanlon**, formerly of the University of Buffalo, N.Y., has been named director of teacher education and chairman of the department of education.

Teachers College, Columbia University, New York City: **Lawrence A. Cremin** has been named to the Barnard Professorship of Education.

The American University, Washington, D.C.: **Paul D. Leedy**, formerly of The Reading Institute, New York University, is now associate professor of education; and **Ralph Whitfield**, formerly acting head, department of education, Winthrop College, Rock Hill, S.C., is now associate professor of educational administration.

University of Colorado, Boulder: **Arthur S. Adams**, who retired in June as president of the American Council on Education, has been appointed professor of higher education.

OTHER CHANGES AND APPOINTMENTS:

Erling O. Johnson, superintendent at Mankato, Minn., has been named successor to **Dean M. Schweickhard** as Minnesota state commissioner of education. Dean Schweickhard will retire in January 1962.

Winfred A. LeCroy, formerly superintendent at Clanton, Ala., has succeeded **Frank R. Stewart** as Alabama state superintendent of education. Mr. Stewart resigned to become president of Troy State College, Ala.

Robert N. Isenberg, formerly assistant director of the NEA Division of Rural Service, is now director, succeeding **Howard A. Dawson**, who retired after 25 years as director.

Gustave O. Arlt, dean of the graduate division at University of California, Los Angeles, has been named first president of the Council of Graduate Schools in the United States, organized last February.

Paul B. Panes has been named acting director of The Reading Institute, New York University, succeeding **Nila Banton Smith**.

Recent appointments in the U.S. Office of Education include: **Warren G. Cutts**, formerly director of the Reading Center, Kent State University, Ohio, named as the first specialist for reading on the USOE staff; **Minard W. Stout**, formerly of the University of Miami, Coral Gables, Fla., and **Freeman H. Beets**, formerly president of the Oklahoma College for Women, both named regional representatives for higher education; **J. Ned Bryan**, formerly director of the North Central Association of Colleges and Secondary Schools Project on Guidance and Motivation of Superior and Talented Students, named head of a special USOE project on early identification of the gifted; and **Edwina Deans**, formerly elementary mathematics supervisor at Arlington County, Va., named elementary mathematics specialist.

RECENT DEATHS:

Harold L. Clapp, professor at Grinnell College, Ia., and first executive secretary of the Council for Basic Education.

Teaching-Machine Guide

To clear up some of the misunderstandings on teaching machines and to provide an interim guideline for the use of the machines, three major educational organizations in October, issued a joint statement on selfinstructional materials and devices.

The statement, prepared by a committee representing the American Educational Research Association, the American Psychological Association, and the Department of Audio-Visual Instruction of the

NEA, contained the following major points:

√ The teaching associated with teaching machines is done by the instructional materials available, not the machine. An evaluation of a machine thus requires assessment of the availability and quality of the programs for each machine as well as its mechanics.

√ Teaching-machine programs on a particular subject vary with respect to content and instructional objectives, so the program should be "examined to determine what the student is required to do and whether this reflects the kind of competence which the educator wishes to achieve."

√ Prospective buyers should inquire about the development of the program, and to what extent student responses provided a basis for revising the program.

√ Prospective buyers should also investigate data on what students actually learn and remember from the particular program and what kinds of students and under what conditions the data were obtained.

√ School systems should actively experiment with selfinstructional materials and devices before adopting them on a large scale.

New Eight-Year Study

An eight-year study of academic prediction and growth, involving 40,000 students in 25 communities, has been started this fall under the joint sponsorship of the Educational Testing Service, Princeton, N.J., and the College Entrance Examination Board of New York City.

The study, which is being directed by Scarvia B. Anderson of Educational Testing Service, will seek to determine how academic growth varies with, or is affected by, characteristics of the school and experiences of the students. The study will also try to determine how early in school the academic standing of a twelfth-grader can be accurately predicted. Characteristics of students who drop out of school will also be studied.

Participating in the study will be 28 public high schools, selected to represent the four different geographical regions and seven different types of schools, varying in size and in the proportion of students going on to college. Elementary and junior-high schools which send a substantial number of pupils to these high schools will also take part in the project.

NDEA Helps Teaching

Three out of every five college students who have borrowed money under the National Defense Education Act of 1958 are planning to teach, according to preliminary results of a survey recently announced by the U.S. Office of Education.

The student loan provisions of the law are designed to encourage students to teach after graduation by providing that 10 percent of each loan is cancelled for each year, up to a total of five, spent teaching. The survey reveals that this goal is being achieved, since, among all college students generally, only about one in four actually enters teaching.

The Office of Education reported it had loaned about $120 million to 230,000 college students and postgraduates as of June 30.

Ruling Amended

A RULING from the Louisiana State Attorney General's office which instructed teachers in Louisiana to quit the National Education Association or be subject to dismissal because of the NEA's support of the U.S. Supreme Court's desegregation order, was modified in October.

The revised opinion, issued by Attorney General Jack Gremillion, states that, "The NEA is not by law nor injunction prohibited from operating in Louisiana and, therefore, a member of that group who is a permanent teacher cannot be removed as a teacher merely because of membership in the group."

A 1956 Louisiana law bars teachers from being members of, or contributing to, any group advocating desegregation on pain of dismissal.

Handwriting Conference

A THREE-DAY conference on Research in Handwriting, the first major national meeting ever held on the subject of handwriting research, was held Oct. 12-14 at the University of Wisconsin, Madison.

The conference, sponsored by the University of Wisconsin department of education, was supported by funds from the Handwriting Foundation of Washington, D.C.

DATES OF THE MONTH:

Nov. 5-8, Adult Education Association of the U.S.A., Denver, Colo.

Nov. 5-11, American Education Week.

Nov. 12-23, National Retarded Children's Week.

Nov. 22-25, National Council for the Social Studies, Chicago, Ill.

Nov. 23-25, National Council of Teachers of English, Philadelphia, Pa.

Nov. 24-25, National Council for Geographic Education, Philadelphia, Pa.

DATES OF THE COMING MONTHS:

Dec. 3-8, American Vocational Association, Kansas City, Mo.

Dec. 27-29, Modern Language Association of America, Cincinnati, Ohio.

Dec. 27-29, National Business Teachers Association, St. Louis, Mo.

Feb. 14-17, American Association of Colleges for Teacher Education, Chicago, Ill.

Feb. 17-21, American Association of School Administrators, Atlantic City,. N.J.

Feb. 24-28, National Association of Secondary-School Principals, St. Louis, Mo.

Mar. 4-8, Association for Supervision and Curriculum Development, Las Vegas, Nev.

Mar. 24-28, Department of Elementary School Principals, NEA, Detroit, Mich.

Mar. 25-29, National Science Teachers Association, San Jose, Calif.

Mar. 25-30, Department of Audio-Visual Instruction, NEA, Kansas City, Mo.

April 15-18, National Council of Teachers of Mathematics, San Francisco, Calif.

April 16-19, American Personnel and Guidance Association, Chicago.

The American High School and the Talented Student. Frank O. Copley. Ann Arbor, Mich.: University of Michigan Press, 1961. Pp. xvii + 92. $3.95.

This book has been written to show how any ordinary high school, large or small, can better educate its superior students.

The author, who served as consultant to high schools in the University of Michigan Literary College Honors Project, starts first with a discussion of the educational issues surrounding the academically talented—who they are, how to identify them, whether to provide them with enrichment, acceleration or both, and how to group them according to ability.

The second half of the book is devoted to practical advice on starting and maintaining an advanced placement program in the high school. Here Professor Copley draws on his own observation of schools that have had advanced placement in operation for the past five years. The result is a practical guide for principals, teachers, and parents.

Learning and Human Abilities: Educational Psychology. Herbert J. Klausmeier. New York: Harper and Brothers, 1961. Pp. x + 562. $7.50.

This text for college-level courses is designed to set forth a theory of classroom learning and to bring together research findings that deal with efficiency of learning.

The early chapters deal with the nature of human abilities, the teaching-learning process, and the main components in an educational setting. Later chapters are concerned with organizing and discussing learning outcomes, including principles for improving efficiency of learning, and the main purposes and features of evaluation and measurement are thoroughly explored.

Secondary Education for All—The English Approach. A. Harry Passow. Columbus, Ohio: The Ohio State University Press. Pp. xiii + 290. $1.75.

This is a Kappa Delta Pi publication, the third in a series of international education monographs. It is an informative description of the English education system.

The author and his family lived in England for a year's academic study financed and sponsored by Kappa Delta Pi. His three children attended English schools and the author notes, "They are shrewd observers and I consulted them frequently."

The author visited 55 schools ranging from the infant school level to teacher-training institutions. Concentration of interest was with the public schools, secondary modern, and grammar schools. Background information is kept to a minimum, enough for a historical perspective; but the emphasis is on what is taking place now, with the author constantly alert to parallels and contrasts to our educational system.

An appendix to the book presents an intimate view from the woman's side as Mrs. Passow writes briefly of her experiences as an American mother enrolling her children in the English schools.

Education and Income; Inequalities in Our Public Schools. Patricia C. Sexton. New York: Viking Press, Inc., 1961. Pp. xxi + 298. $6.00.

Using a study of the public-school system in Big City (a Middle West industrial metropolis) as a source of evidence, Professor Sexton presents the reader with the hypothesis that our educational system places limitations on a child's opportunities according to the size of the parent's income.

Charges are made that children from low-income families have inferior teachers, less adequate school facilities, and substantially fewer opportunities to advance academically or socially. The author documents the charges with statistics derived from her study of Big City.

The IQ tests and numerous other tests are criticized for being loaded in favor of middle-class and upper-class children. Segregated classes, and curriculums divided to penalize low-income children are attacked as injustices which place severe handicaps on culturally deprived children.

In a direct, strong writing style, Professor Sexton's book supports a statement in the introduction: "The doors of opportunity have been opened, but not very wide."

In the concluding chapter, "Comments and Suggestions," Professor Sexton presents her ideas on how the door could be forced back to provide a wider opening.

OTHER MATERIALS RECEIVED: ELEMENTARY

Simple Science Experiments for the Elementary Grades. Harold Visner and Adelaide Hechtlinger. Palisade, N.J.: Franklin Publishing Company, Inc., 1961. Pp. 232. $4.80. Includes 210 experiments from the fields of earth science, biology, physics, and chemistry for grades 4-6.

Wild Ways; A Book of Animal Habits. Ross Hutchins. Chicago: Rand McNally & Company, 1961. Pp. 109. $3.50. Includes more than 50 photographs.

Patriot Silver. Robert James Green. New York: St. Martin's Press, 1961. Pp. 183. $3.50. A story of the American Revolution in the South.

Hurry Up, Slowpoke. Crosby Newell. **Mr. Pine's Mixed-Up Signs.** Leonard Kessler. New York: Wonder Books, Inc., 1961. Pp. 61 each. $.59 each. Wonder Book easy readers.

Modern Elementary School Science: A Recommended Sequence. Willard J. Jacobson and Harold E. Tannenbaum. New York: Bureau of Publications, Teachers College, Columbia University, 1961. Pp. x + 194. $2.25.

Arithmetical Excursions: An Enrichment of Elementary Mathematics. Henry and Joan E. Bowers. New York: Dover Publications, Inc., 1961. Pp. xi + 320. $1.65.

Elementary Teachers Guide to Free Curriculum Materials. (Eighteenth Edition.) Randolph, Wis.: Educators Progress Service, 1961. Pp. xiv + 346. $7.50. Includes section on "Units on Free Materials."

Educator's Guide to Personalized Reading Instruction. Walter B. Barbe. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1961. Pp. xii + 241. $4.95. A presentation of the personalized method of teaching reading in grades 1 through 6.

SECONDARY

Living in Safety and Health. Evelyn G. Jones. Chicago: J. B. Lippincott Company, 1961. Pp. xii + 433. $4.60.

Art for the Academically Talented Student in the Secondary School. Edited by Edwin Ziegfield. Washington, D.C.: National Education Association, 1961. Pp. 112. $1.00.

Planning for Excellence in High School Science. Washington, D.C.: National Science Teachers Association, 1961. Pp. 67. $1.00.

Language and English Grammar in a Nutshell. Harold Cantor. North St. Paul, Minn.: Lillie Printing Company, 1961. Pp. vii + 23. Teacher edition also available.

The Slow Learner in Secondary Schools. 1961 Yearbook of the New Jersey Secondary School Teachers Association. Pp. 100. Available from the Association, 1035 Kenyon Ave., Plainfield, N.J. $1.00.

COLLEGE

Work-Study College Programs. James W. Wilson and Edward H. Lyons. New York: Harper & Brothers, 1961. Pp. xii + 240. $3.50.

On Teaching in a Christian College. Myron F. Wicke. Nashville, Tenn.: The Methodist Church Board of Education, Division of Higher Education, 1961. Pp. 93. $1.25.

The Poor Old Liberal Arts. Robert I. Gannon. New York: Farrar, Straus and Cudahy, 1961. Pp. viii + 207. $4.00. The former president of Fordham University writes his memoirs and discusses the sad fate of the liberal arts in our time.

GENERAL

Wisdom for Our Time. Edited by James Nelson. New York: W. W. Norton & Company, Inc., 1961. Pp. xiv + 267. Interviews with 22 great women and men of our time.

New Horizons in Education; The Benefits of Study Abroad. Edited by George Gardner and Stanley Washburn, Jr. Chicago: Rand McNally & Company, 1961. Pp. xiii + 526. $1.95. An international guide to the principal universities of the world.

The Statesman's Year-Book, 1961-62. (98th Edition.) Edited by S. H. Steinberg. New York: St. Martin's Press, 1961. Pp. xxviii + 1684. $9.50. Statistical and historical annual of the states of the world.

Psychology in Teaching Reading. Henry P. Smith and Emerald V. Dechant. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1961. Pp. x + 470. $10.00.

Learning, Remembering, and Knowing. Patrick Meredith. New York: Association Press, 1961. Pp. 174. $3.50.

Mental Retardation; Readings and Resources. Edited by Jerome H. Rothstein. New York: Holt, Rinehart and Winston, 1961. Pp. xii + 628. $6.75.

Sound Language Teaching: The State of the Art Today. James S. Holton, Paul E. King, Gustave Mathieu, and Karl S. Pond. New York: University Publishers, Inc., 1961. Pp. xi + 249. $5.50.

Teaching by Machine. Lawrence M. Stolurow. U.S. Office of Education Cooperative Research Monograph No. 6. Pp. vi + 173. Available from U.S.

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Government Printing Office, Washington, D.C. $.65.

How to Measure Faculty Work Load. John E. Stecklein. Washington, D.C.: American Council on Education, 1961. Pp. ix + 51. $1.50.

The Foundations of Modern Education. (Third Edition.) Elmer H. Wilds and Kenneth V. Lottich. New York: Holt, Rinehart and Winston, Inc., 1961. Pp. xv + 491. $6.00.

House of Seven Gables. Nathaniel Hawthorne. **The Mystery of Edwin Drood.** Charles Dickens. **Idylls of the King.** Alfred Lord Tennyson. **Twenty Years at Hull House.** Jane Addams. **The Vicar of Wakefield.** Oliver Goldsmith. **Ressurrection.** Leo Tolstoy. New York: New American Library, 1961. $.75 and $.50 each. Some of the new titles in the Signet Classic series.

AUDIO-VISUALS

Color and Light: An Introduction. A 16mm color film on color and light for the intermediate grades. Available from Coronet Instructional Films, 65 E. South Water St., Chicago 1, Ill. $110.

Behind the Tape—the Teacher. A 45-minute tape recorded guide to effective use of the language laboratory. Includes **A Beginning Audio-Lingual Guide,** a 20-page lesson guide by Edward M. Stack. Available from 3M Company, St. Paul, Minn. $2.25.

Understanding the Atmosphere. A series of six filmstrips, available from The Jam Handy Organization, 2821 E. Grand Blvd., Detroit 11, Mich. $31.50 for the series; $5.75 each filmstrip.

Teachers at Work. A series of five filmstrips on modern elementary education. Available from Teaching Aids Laboratory, The Ohio State University, Columbus 10, Ohio. $20 for the series; $4.50 each filmstrip. Handbook included.

Physical Science Study Committee Physics Films. A series of 16mm films designed for high-school use. Film titles and prices available from Modern Learning Aids, 3 E. 54th St., New York 22, N.Y.

Ex Litteris

(*comments from our readers*)

Dear Sir:

For years I have been a subscriber to THE EDUCATION DIGEST. I enjoy the digests of educational problems—gives me much food for thought.

My son and daughter-in-law are now teaching. I want to subscribe for them, hoping it stimulates their thinking . . .

Agnes C. Booth,
Marion County
Superintendent,
Salem, Ore.

Dear Sir:

In the September issue of THE EDUCATION DIGEST, you carried an announcement of the retirement of Henry H. Hill and my succession to the presidency here at Peabody. I want to thank you for this announcement which is important to us in that it was carried by a vital publication with national coverage.

. . . Notable news (is developing) on this campus. For example, we are beginning the development of two residential schools for emotionally disturbed children and a training program for the staffs of these schools which we expect to be models for the United States and which should be enormously influential within the next few years . . .

Felix C. Robb,
President,
George Peabody
College for Teachers,
Nashville, Tenn.

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The Education Digest

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Volume XXVII October 1961 Number 2

The Education Digest

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EDUCATIONAL PRESS ASSOCIATION OF AMERICA

Editorial and Circulation Office: 416 Longshore Drive, Ann Arbor, Michigan.

Advertising Sales Offices:

Ann Arbor, Mich.—416 Longshore Drive, telephone NO 8-7205.

Chicago, Ill.—Didier & Broderick, Inc., 5809 Lincoln Ave., telephone LO 1-5284.

New York 17, N.Y.—Macintyre-Simpson & Woods, 101 Park Ave., telephone LE 2-0020.

Los Angeles 5, Calif.—The Jess M. Laughlin Company, 711 S. Vermont Ave., telephone DU 3-7697.

Published monthly, September through May, by Prakken Publications, Inc., 416 Longshore Drive, Ann Arbor, Michigan. The annual index is included in the May issue. The contents of THE EDUCATION DIGEST are listed in the **Education Index.**

Subscription Rates: $5.00 a year; 2 years, $9.00; 3 years, $12.00; foreign, $5.50 a year. Single copies, 60c.

Second-class mail privileges authorized at Ann Arbor, Michigan, and additional entry authorized at Oxford, Ind. Printed in the United States of America.

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PRAKKEN PUBLICATIONS

THE EDUCATION DIGEST

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Volume XXVII OCTOBER 1961 Number 2

New Approaches for Better Schools

Staff Utilization in the School

J. LLOYD TRUMP and DORSEY BAYNHAM

In Focus on Change; Guide to Better Schools

HOW will the professional staff be utilized in the secondary school of the future? While no school now exists which conforms exactly to the entire list of recommendations developed from studies of experimental staff utilization sponsored by the National Association of Secondary-School Principals' Commission, an image of such a school can be perceived by discussing the studies.

What follows describes briefly the results of some of the projects connected with the four-year study. The projects are classified according to the focus of the study: large-group instruction, small-group discussion, teacher assistants, team teaching, schedule modification, educational facilities, individual responsibility for learning, and state projects.

Evaluation of large-group instruction projects in several schools, each known nationally for quality instruction in groups ranging in size from 50 to 1100, indicates that large-group classes, once regarded as experiments, are now accepted as quite ordinary segments of the instructional program.

J. Lloyd Trump, now Associate Secretary of the National Association of Secondary-School Principals, served for four and one-half years as director of the NASSP Commission that sponsored the studies described in this report. Dorsey Baynham, a professional writer, was formerly editor of Education U.S.A. *Reported from* Focus on Change; Guide to Better Schools, *published by Rand McNally & Company, Chicago, 1961, 73–103.*

The projects have established that doubts concerning problems of class indifference or boredom, or fears that students would be reluctant to inquire or respond in a large-group situation, failed to materialize. Teachers concluded:

Investments in time and imagination to keep classes lively pays high dividends. Indifference of a few students is apparently more contagious in small groups than in large classes, where the influence of better, more conscientious students seems to prevail.

So, as to the practice of large-group instruction in the secondary school of the future, the projects have advanced the development to this point: Instead of asking, "Can we teach in large groups?" teachers now ask, "What shall we teach and what techniques shall we use?" Also, the experiments have shown that achievement in large classes generally ranked as high as in traditional classes of comparable ability, and sometimes higher.

Most schools which scheduled large classes also scheduled small classes for follow-up work, demonstrating that small classes serve unique and important purposes. They provided a setting where teachers came to know and understand individual students better and where students further explored the ideas suggested by large-group presentations.

The projects have demonstrated that small-group classes provide for gearing instruction to individual strengths and weaknesses. Specifically, they were used for such things as rapid coverage of textbooks, for informal discussion, for answering questions and solving problems, and for reviewing study units. These projects led the teachers to this conclusion: Small groups are the desired setting for group planning, intensive group projects and inquiry, and the clarification of ideas and concepts through discussion.

Many staff utilization studies used teacher assistants or aides in the search for more time for professional teachers. The projects were not exactly alike in any two schools, nor were the aides alike in the contributions they made.

A typical program was one which used clerical help and student assistants to relieve teachers of many nonteaching tasks. Objective tests indicated that students in the school's experimental classes gained significantly in subject-matter achievement. Changes in teaching effects cannot be measured the same way, but experienced educators from liberal arts and education colleges observed the projects and commented that imaginative, thoughtful teaching and high teacher morale and enthusiasm were apparent.

The experiments demonstrated that teachers can and do learn to use teacher assistants effectively and efficiently for nonprofessional tasks.

TEACHING TEAMS

As for teaching teams, it is evident from surveys of projects experimenting with this form of teaching that there is no one pattern of practice. The teams are of various sizes and compositions, usually concerned with one subject field, but their function and purpose sometimes takes them across subject-field lines.

At the end of two years, these conclusions, based on responses from teachers experimenting with team teaching, were reached:

Team teaching provides the setting in which individual teachers can best use and further develop their individual talents. The students thereby benefit from the very best the teacher has to offer.

SCHEDULE MODIFICATION

Project experiences have demonstrated that flexible scheduling and schedule modification are indispensable to a school program whose goal is to develop talents of individual students by using the best skills of individual teachers. Schedule modification methods varied among the projects, but one example should serve to indicate the factors involved.

Without making revolutionary changes in customary schedules, one large high school introduced large-class instruction by two simple procedures: by combining into one large group the several classes in one subject which met at the same period; and by reserving two one-hour blocks of time each week when the entire school was available for activities not regularly scheduled.

School administrators planned the master schedule so that large-group classes were concentrated within specified periods. Usually, large classes were scheduled for the first part of the week and small classes for the last half, permitting the subject matter presented to the large groups to be discussed and developed by small groups later, and before the weekend intervened.

For added assistance in rearranging schedules, some schools are using, and many are planning to use, electronic data-processing equipment. Realignment of teaching function and schedule does increase the amount of clerical work.

The term "educational facilities" today has a broad meaning. It includes radio, television, films, and selfteaching devices—a wide range of technological equipment which adds to the variety and effectiveness of teaching in both large and small schools.

Reports on the projects document conclusively that there are avenues to knowledge other than those used in the past. There is no question that the new technology can help in motivating students and transmitting knowledge. Their use must be studied carefully and imaginatively for the most beneficial results, but good teaching is aided and extended through their use.

The school building, the basic school facility, was the subject of other staff utilization studies. One school's experimental program included team teaching, flexible scheduling, and opportunities for selfdirected study by students. Design factors involved in building this new school were: space for large classes and an arrangement which favored teaching that cuts across subject-matter lines. At the project's termination, teachers indicated that the experiment had provided an enriched curriculum, tied learnings from one area to those of another, and stimulated professional growth. Underlying these positive responses was the fact that, by providing greater flexibility, building design makes a major contribution to a quality education program.

The development of student responsibility received top priority in several projects. Students were guided in making wise decisions about use of their out-of-class time in studying science, foreign language, and history. Reports of the experiments are quite positive. Students in these projects developed better independent study habits and concern about individual work. In assuming greater responsibilities, they freed teachers from certain routine tasks, providing more time for professional duties.

Evaluation of the experiments indicate that the students mastered as much subject matter as those in the traditional classes and sometimes more. Benefits to the students include extensive use of reference sources and independent reading to develop critical thinking.

Two state-wide projects, in Illinois and Utah, had particular significance because they demonstrated where the responsibility lies for determining the nature of needed changes in tomorrow's secondary schools. Developed by the two state associations of secondary-school principals, on the basis of local needs and characteristics, these projects pinpointed the truth that needed changes for better schools will come from thoughtful, conscientious leadership within the profession.

State education department administrators can adopt one of three basic attitudes toward change in education. They can cling to present regulations concerning school operation, thus limiting research and new approaches. They can assume a policy of neutrality, which, by relaxing regulations for schools wishing to experiment, puts a stigma on research, but at least permits it. Or, they can assume leadership as Illinois and Utah have done and spearhead research and new ideas.

Chief state school officers can play key roles in seeking improved public education on research. They can develop projects, obtain consultant help to answer questions raised locally, disseminate research results, and assist schools in making changes dictated by research findings.

Due to the fragmented nature of the studies reported here, potential gains for students and teachers, as well as gains in the use of facilities and funds, were limited. But education has been likened to a spider's web—disturb one part, and all other parts are affected. Something intangible, yet very real, produces a general stimulation in the school and community where experimentation occurs. The experience of schools that conducted studies should encourage other schools to try the new approaches to better schools. •

A Flexible Span of Learning Time

Now It's the Ungraded School

ALBERT R. BRINKMAN

In The PTA Magazine

A NEW phrase, the "ungraded" school, is now in the arena of educational controversy, with as many advocates and interpretations as "life adjustment" of a few seasons back. Some persons prefer to use the word "nongraded."

To some parents and educators, the ungraded school suggests the maligned progressive method of the 1930's and an attempt to sell the public on an easy school. To others, any school plan that departs from the familiar constitutes a threat.

The ungraded school plan proposes to group children on the basis of age, abilities, and other related factors, and let them move ahead at their own speed. Such flexibility enables a youngster not only to work with his own class and teacher but to work with another class and another teacher—in arithmetic, for example—where there may be a better match for his ability.

"Why can't you do all these things without dropping the names of the grades?" critics demand. The appeaser's way out is to agree that this is possible. But to the purist, erasing the names that designate artificial steps in the regimented school ladder is basic to the viewpoint inherent in the ungraded school plan.

The step-by-step graded ladder found in elementary schools today was copied from European schools. Before the turn of the century, the packaging of just so much of the three R's into eight well-defined installments appeared to be an efficient way to adapt schools to their expanding population.

In its efforts to be efficient, the graded school has set up a series of fences graduated in height. Youngsters are expected to hurdle one of these fences at the end of each school year.

In the minds of many adults, there is such a human creature as a "first-grader" or a "sixth-grader," with his own neatly wrapped dosage of work carefully prescribed. Since this viewpoint has become entrenched, a good deal of hard selling is necessary to convince parents and some teachers that children cannot be aligned in tidy compartments like eggs in a carton.

Consider the business of teach-

Albert R. Brinkman is superintendent of schools at Dobbs Ferry, New York. Reported from The PTA Magazine, *LV (June 1961), 24–26.*

ing children to read in the conventional graded school. Some youngsters come to the first grade able to proceed to the regular reader with little readiness preparation. Others may take until Christmas to read the printed word with understanding. Still others may barely reach this point by the end of the first grade. It is likely the latter will be left behind to repeat the first grade.

The reason why Johnny can't read is likely to be a matter of readiness, or maturity, coupled with unrealistic expectations, rather than low intelligence or ineffective teaching. Having a child repeat the first grade because he is unable to read at par for that grade is rarely justifiable. Most slow starters ordinarily blossom out by the middle of the second year and are able to hold their own without being left behind. Repeating a grade at this point can label a youngster as a failure right at the beginning of his school career.

The ungraded school seeks to erase some well-established, artificial obstacles placed in the path of individual progress without impoverishing standards. It provides a flexible span of learning time for each child.

THE BIG DIFFERENCE

What does an ungraded school look like inside? There is no striking physical difference. The ungraded school uses the same kinds of desks and blackboards found in the graded school. The big difference is in the approach to grouping youngsters for more efficient teaching and learning. The teacher in the ungraded school understands that 30 pupils cannot be expected to respond to a question with the same answer in the same way at the same time. She knows they will learn at varying rates of speed and comprehension. To obtain a carbon copy response from the whole class, a teacher need only devise a series of questions requiring one-word answers. This is not learning, though it may be easy teaching.

Professional resistance to the ungraded school plan may well be a major hurdle. To the traditional teacher, long wedded to a given set of textbooks for a particular grade or subject, any invasion of the work province at the next grade level suggests a breach of professional ethics. "But what will Miss Quincy teach next year if I start on that work now?" is the usual question. The success of the ungraded design, as in any technique of school organization, depends on understanding, adaptable teachers.

Having the primary teacher stay with her class for more than one year is one feature of many ungraded plans that may bother some teachers and parents. Yet, giving the teacher more time to watch the progress of individual pupils has many advantages to offset fear that youngsters may be denied exposure to another adult or be trapped in an unchangeable personality conflict.

Most parental opposition to an ungraded plan focuses on the methods of grouping children according to the needs and capacities of each. Many will endorse the idea but hold back when the moment of truth about their Bruce or Sally has to be faced. Their pride is wounded if their child is assigned to any but the "best" group.

There is concern, also, that the grouping of children may bring about a social-class alignment in the school room. Couldn't an ability grouping scheme result in a personal contest between the suburbanite youngster and the child living down by the tracks? Those feeling this apprehension forget that a high IQ or a special talent is not the exclusive property of those with the best addresses.

In this concern for the gifted, a related value of the ungraded school is its inherent facility to accomodate the more able youngster without some of the perils of "skipping." Though such a youngster goes ahead at his own speed within the three-year block of time, competent teaching will ensure that in bounding ahead he does not neglect perfecting certain skills—the mechanical skill of handwriting, for instance.

Another doubt often expressed by parents is, "What happens if a child in an ungraded school transfers to a conventional school?" Actually, this is no problem. Each child's academic record includes the results of standardized achievement tests, given at least once a year. These test scores, together with teachers' estimates, a list of textbooks and materials the child has mastered, and other data, make it an easy matter to place him at the proper level in a graded school.

To dispel overtones of mistrust or misunderstanding about the "ungraded" or "nongraded" school, I believe those adjectives should be dropped. "Primary" and "intermediate" would be a better choice, the first referring to that block of work ordinarily undertaken in kindergarten through third grade, the latter to describe the work traditionally covered in grades four through six.

Regardless of the name used, we should remember that schools are for children. The heart of the matter is, "What can a plan of organization do to provide flexibility for children to stretch their minds and break down the restrictive barriers to individual progress?" The pattern for the future should be of a form without a hard and rigid academic lock step that disregards what has been discovered about how children learn and grow. •

IN education, as in everything else, we cannot do today's job with yesterday's tools and be in business tomorrow.—*Thomas D. Bailey.*

Two Variations of the Concept

Promising Practices in Nongraded Schools

JOHN GOODLAD

In Midland Schools

AT the outset, it must be remembered that few, if any, truly nongraded schools exist. Nongrading does exist in concept, however, and there appear to be two basic variations of the concept.

One concept emerges from the search for a pattern of school organization designed to encourage, for learners of varying abilities, differentiated rates of progress through prescribed subject-matter requirements.

This search is under acceleration from our increased awareness of differences in and among individuals, a nationwide concern for teaching more in less time, and interest in meeting special problems with gifted and slow-learning students.

Many educators see nongraded organization as compatible with such concerns. At least 500 schools have eliminated grade-labels, most frequently at primary levels, but occasionally throughout the entire elementary unit.

Some educators have an uneasy feeling after reading about or visiting ungraded schools. What they see in practice doesn't appear to follow from their own interpretations of humanitarian concern with the individual, or from newer insights into individual differences. They perceive in nongraded schools the same narrow concept of school function that prevailed in the graded schools. What they fail to see is that removing grade lines does not necessarily eliminate educational functions served by grades.

Most existing nongraded schools simply seek differentiated progress for learners through subject-matter sequences which are relatively common for all. This is a step forward, and, with the weight of educational machinery to be moved, perhaps all that can be reasonably expected for the 1960's.

These uneasy educators should turn their imaginations to a second

John Goodlad is Professor of Education and Director of the University Elementary School, University of California, Los Angeles. Reported from Midland Schools, *LXXV (May 1961), 15–16.*

concept of nongrading. Imagination is necessary because the concept, let alone the physical reality, is scarcely formed.

Briefly, this second concept of nongrading seeks to encompass a broader view of schooling. Down through the centuries, philosophers and educators have attempted to describe what schooling might be like if we really learned to provide programs that cultivate the higher mental processes, develop the unique potentialities of the individual, stimulate creative inquiry, free the human being from his debilitating neuroses, and so on.

These are complex ideas and their significance has been dangerously homogenized into sterile slogans: teach the whole child; teach children not subject-matter, etc. After weaning on such slogans, many a teacher has beaten a hasty retreat under heavy bombardment from vigorous critics demanding rigorous curriculums. However, these ideas keep reappearing like hungry children demanding to be fed.

This second concept of nongrading proposes at least a light snack. The meals of substance will be those provisions of curriculum and instruction devised within the nongraded structure.

Regrettably, we lack a conceptual model by which practices associated with the efficient covering of subject-matter may be sorted out from practices associated with the broader conception of function suggested above. Consequently, we lack an adequate basis for appraising practices in different types of nongraded schools, or for comparing graded with nongraded patterns. What we can present is a description of practices from material gleaned from reports of surveys of nongraded schools. The surveys were conducted in 1954 by this writer, in 1956 by Kent C. Austin, and in 1958 and in 1960 by Robert H. Anderson and this writer.

Many of the schools reported the use of a reading-levels plan in which an attempt is made to identify a sequence of difficulty in reading progress. Sometimes these levels are then used as bases for alloting children to available teachers, sometimes as a basis for setting up instructional groups within classrooms. Establishing interclass groups in this way complicates the problem of shifting children who come to deviate markedly from the reading levels of their class, since the transfer involves two classrooms and two teachers.

Some schools attempting a reading-levels diagnosis for instructional purposes make no use of levels in establishing interclass groups, partly because individuals do shift periodically in their progress, and partly because classes set up homogeneously for reading remain heterogeneous in many other respects. Several schools, having worked out designations of reading levels, deliberately de-emphasize them to keep from replacing three or four of six grade-levels with eight or 12 or 30 reading-levels.

Within a year or two after removing grade levels, virtually all nongraded schools devised new systems for distributing instructional materials. They found that 30 copies of this or that allotted to each classroom did not work, as good teachers in graded schools have realized for years. Nongrading created an urgency that could not be administratively denied, just as it created demand for several series of textbooks, more reference books, and materials designed for enrichment and advancement of gifted learners.

Nongrading apparently served as the stimulus for a transition from report cards to parent-teacher conferences; for the organization of parent groups to study child development and modern educational programs; and for total faculty study of school improvement needs.

In some schools, teachers entered into studies designed to find new ways of dealing with individual differences, organizing curricular sequences, and for appraising learning beyond the possession of subject-matter information. These activities are not necessarily the outcome of nongrading, but a significant number of schools reported unprecedented activity toward changing long-standing practices. The implication is that nongrading is a powerful stimulant of change.

Enthusiastic respondents attribute to nongrading a reduction in tensions for slow-learners, a lessening in boredom for the academically talented, and improved classroom behavior. Dissenting parents and teachers are few. It might be concluded that most persons associated with nongraded schools are happier for having them.

For a time, at least, until rigorous research designs and studies employing them are available, the promise of nongraded schools will continue to be appraised on the basis of their perceived contribution to human well-being. •

School Personnel—Graded and Classified

(German translations of American Terms)

School superintendent: Das schweatenoudter mit be schulen-boarders und unterschtaffen oberwerker.

Principal: Das grosse oberschnooper.

Grade teacher: Das schpitballen-kontenden inschtruktor mit der pushenschovenkicken grupe.

Chemistry teacher: Das geschtinkenwerkes direktor.

Shop teacher: Das oberinschtruktor mit der schrewdriven und thumbgebangen grupe.

Custodian: Das picknupper und schweepenoudter.—From *Midland Schools.*

A Guide to Language Laboratories

In School Management

SCHOOLS throughout the nation are installing language laboratories at a rapid rate. A fair gauge of their acceptance is evident from a survey *School Management* made of the number being installed in new school buildings.

Of 296 new high schools being planned or under construction, 80 are installing language laboratories. This means that 27 percent of new high schools are installing an expensive setup that was almost unknown in public schools three years ago.

The figures are equally impressive in new junior-senior-high schools under construction. Of 134 being constructed or planned, 28, or more than 20 percent, are installing language labs. Even among new junior-high schools, 25 out of 172 are planning language labs.

It is interesting to measure these figures against the figures supplied by the Modern Language Association on foreign languages in the curriculum. That group estimates that only 60 percent of all public high schools in the United States are currently teaching a modern foreign language and that less than 9 percent of the high-school students are studying a language. In the junior-high-school grades, less than 4 percent of the students are studying a modern foreign language.

The rate at which schools are making expensive installations has given rise to some misgivings. In many cases the installations are made without proper planning, causing one manufacturer of language lab equipment to express concern about the haste with which some schools are making this investment in his equipment.

"Understand," he said, "I'm not trying to cut my sales. We're swamped with orders. But there's nothing worse for us as manufacturers, or for schools themselves, than the installation of equipment that can't, or won't, be used properly.

"Before we will accept an order from a school, we like to know whether the teachers want a language lab and how they plan to use it. Language laboratories can be a great asset to the schools—if they are properly planned. And proper planning means involving teachers. We have equipment available right now that is more

Reported from School Management, V (*June 1961*), *49–53.*

than adequate for schools in the forseeable future, but it must be used properly if it is to have any value."

When administrators of a school district consider investing in a language lab, the first step should be to determine if there is a need for the installation. Evidence indicates that a language lab is needed if the two following conditions are present:

If it is accepted in the district that the fundamental purpose of teaching any modern language today is to prepare the student for communicating–speaking–the language well enough to be understood by, and understand, a native.

If the teachers and language department heads have personally observed and accepted the benefits that accompany proper use of the equipment.

If these conditions are present, there is no questioning the value of a language laboratory.

Winning the support of the language teachers is a necessary first step in introducing a language laboratory into a school. Teachers must have time to investigate long before the equipment is introduced into the classroom. They will need time to adjust their courses, to select and prepare materials, and to learn how to use their equipment.

In the hands of a well-prepared, enthusiastic teacher, a language lab can be a valuable tool. Without her support, it is almost useless.

Assuming the district has the curriculum and the teachers to make a language lab work, then what kind of equipment should be purchased? Here is a guide to successful purchasing as suggested by Robert W. Schaerer, assistant superintendent of the St. Charles, Ill., school district.

SELECTION OF EQUIPMENT

How you intend to use the equipment should be a guide in determining selection. There are three basic methods for using a lab. The first takes very little equipment; the last, a great deal.

The first method is listening. To use the lab for this purpose only, a few record players or tape recorders and, if you wish, some earphones to let students listen in privacy are all that is needed.

This simple setup is particularly useful in the early grades or in the early stages of language instruction. It encourages careful listening and involves speaking. But errors in pronunciation, timing, and stress are frequently not corrected since most speaking is done by groups of students rather than individuals.

The second method is listening and speaking (listen–respond). For this purpose, the lab must be equipped as for listening only, but, in addition, students must have microphones for speaking. To be most effective, each student should have his own headphones to receive the recorded lesson and a microphone in an individual booth.

Responses of the students are picked up by the microphones in the booths. A teacher, sitting at a desk, may monitor the students individually, or cut into the circuit to distribute the recorded lesson, correct pronunciation, and answer questions.

Third, the listening, speaking, and comparison method (listen–respond-record). This accomplishes all that the other two methods will and also gives the student an opportunity to record his own voice to compare his speech with that of the instructor or other "native" language speaker.

This is the most complete use of the lab and it involves the most expensive equipment. Each student will need two tape recorders or one recorder with a binaural head, making it possible for him to record his voice in response to instructions given in the lesson and then play back his response and compare it with the model voice.

During the lesson, the live instructor is stationed at a control panel, which is the master control for the entire laboratory. The teacher, wearing a headphone and microphone headpiece, is in direct contact with any or all of the booths. He can have a private conversation with any student in the lab, listen to his progress, or speak simultaneously to all students.

The way students are grouped also will affect the lab you need. If the lab is to be available to students studying on their own (the "library method"), then you must provide equipment that will handle several students studying individually at the same time. The minimum would be a listen-respond lab with individual recorders and microphones.

If students are not to work individually, they may be grouped according to ability, levels, or languages—all using the lab at the same time. If so, you will need a console with as many channels as there are groups or a series of tape recorders with individual earphones and microphones.

If all students are going to work together on the same material at the same pace, then the simplest laboratory will do the job. A record player or tape recorder with students listening directly, or with headphones, will handle this situation. Again, the installation of microphones makes it possible for the teacher to correct individual speaking deficiencies.

SIZE OF LABORATORY

What size should the laboratory be? As a recommended minimum size, the laboratory should be no less than one-half the size of the largest language class. It need not be larger than the largest class.

The lab should be planned for flexibility. Many schools start with a small laboratory and gradually expand, adding components and equipment to make full, individualized, library laboratories. If you decide on this procedure, proper planning is critical. Ample provisions for electrical wiring should be planned at the beginning to handle any anticipated expansion.

You will have to decide early

whether to use tapes or discs. The magnetic disc-type installation is cheaper and promises long wear but is restricted in fidelity and length of playing time. The more expensive tapes have higher fidelity and extended playing time but have a shorter useful life.

Selecting recorders is another decision that will have to be made early. If monaural recorders are chosen, you have only one channel for listening or recording but cannot do both simultaneously. If students are to evaluate their language against that of the instructor, a binaural recorder or two monaural ones are needed for each student.

There are three types of microphones to consider—dynamic, crystal, and ceramic. The dynamic are best, most expensive, and most fragile. The ceramic and crystal units are lower in quality but are more rugged. A good idea is to purchase one dynamic microphone for the instructor's use and more rugged types for the students.

There are also three types of headphones – magnetic, dynamic, and crystal. Crystal is superior but lacks the sturdiness of the others. An important consideration when purchasing headphones is that they are affected by changes in temperature and humidity.

In selecting booths for your lab, you will have to decide between the convertible type, which folds into a desk permitting the room to be used for regular classes, and a permanent booth offering a high degree of isolation and acoustical treatment.

You should consider having an isolation booth for the teacher to have favorable conditions for making master tapes and grading student tapes. Also, the teacher should be provided with a portable tape recorder of the same manufacture as used in the lab. This permits the teacher to schedule his work efficiently.

The complexity and quality of lab equipment will determine the cost. Generally, the audio passive lab for listening only will cost from $30 to $100 per student. The non-recording listen-respond lab, for use by groups, costs about $150 to $250. The most flexible lab, listen-respond-record, which permits listening, speaking, and comparison, plus use by either groups or individuals, costs from $300 to $500 per student. •

HIGH schools will need language laboratories for the same reason colleges now need them—increasing enrolment, greater variety of language offerings, and scarcity of instructors. Where three or four levels of language instruction are now sufficient in our high schools, seven, eight, or nine may be necessary as language training starts in ever lower grade levels.—*F. Rand Morton,* University of Michigan.

Liberal Education and Quality

I. L. KANDEL

In The Educational Forum

THERE can be no doubt that the launching of the Soviet Sputnik was most effective in directing attention to weaknesses in American education. That event accomplished more than 40 years of warnings from our own educational Cassandras (such as the late Dr. William C. Bagley who inveighed against the relaxation of standards in our schools from 1920 until his recent death).

But the panic caused by Sputnik was temporary. There was a return to complacency and smugness about the status of American education. The defenders could point with pride to huge high-school enrolments and prospects of increasing numbers in colleges and universities. And in 1960, an advocate of the child-centered school, generally considered the cause of the revealed weaknesses, can tranquilly refer to the general upheaval as "the recent hullabaloo over the need to raise educational standards."

The "hullabaloo" was generally associated with Sputnik, and any reference to education in the U.S.S.R. was attacked as an attempt to foist its pattern on the American people. This suspicion was carried over to anyone mentioning "European" education.

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Actually, it would be difficult to discover in any consideration of the desirable needs of American education any critic who suggests that the dual system of European countries should be imitated in this country. The value of a comparative consideration of education in European countries is not to prove how much superior one system is to another, but rather to look for the inspiration of new ideas whereby one's philosophy of education may be challenged or enriched. This has been the process whereby education has progressed through the ages and from one culture to another. This cross-fertilization of ideas has always been an active agent in education.

In the present crisis, all that can be suggested is that it is worthwhile to investigate European educational systems to realize the emphasis placed on quality, standards, and thoroughness. For, whatever the reasons, in the attempt to be all things to all men in the name of democracy, we have lost a sense of educational values. Subjects of instruction as well as the school organization have been democratized, and all subjects taught for the same length of time have been regarded as equal in value educationally. A high-school certificate has come to attest merely to the fact that its holder had spent four years in high school and has met the quantitative requirement.

DEFECT RECOGNIZED

A serious defect of the American high school has finally been recognized. That defect stems from the quantitative interpretation of requirements which has permitted a shopping around for subjects. The result is a lack of understanding and maturity that comes from continuity of study.

Dr. Conant's recommendations for the high school and the junior-high school seek to correct this defect. Without admitting it in either report, Dr. Conant has, perhaps subconsciously, adopted the characteristic organization of the secondary-school curriculum in Europe by recommending a longer school day, more homework, and continuity in the study of such academic subjects as English, foreign languages, science, mathematics, and social studies.

Dividing the high-school population into two groups—the academically gifted and the rest—Dr. Conant seems to confine the recommended program to the former group, which he estimates to be 15 percent of the student body. He does not further subdivide the remaining 85 percent who are to be trained in "marketable skills" with a little sugar-coating of academic subjects. And this raises the question: What is the purpose of the academic program? Dr. Conant presents no other argument for it than such a program is necessary for entrance into college. If this is so, then the academic subjects really become a form of "marketable skills."

There must be other values in the study of academic subjects than their service as tickets to college. Without some broader goal for education than preparation for college, the spirit of the academic subjects and their justification are likely to be missed, and they may be reduced to mechanical skills without meaning beyond their acquisition for examination purposes.

The academic subjects can become educationally valuable if studied as man's efforts to understand himself and his world and as different methods by which man has sought to express himself. They should have a place in the education of all educable students.

The disappearance of the term "liberal education" (discarded from the literature of secondary education many years ago for being too vague) left subjects as such isolated from each other. By discarding a concept which had survived 2,000 years, more was done than to break with tradition. Even the later aims put forward to justify the retention of academic subjects were rejected when it was assumed that the doctrine of formal discipline or mental training had been "exploded" by laboratory experiments.

It is paradoxical that, in a nation that stands out preeminently as the strongest defender of the ideal of freedom, the concept of liberal education should be discarded. For liberal education, if it has stood for anything in the history of education, has sought to make men free and able to develop their capacities as free citizens and responsible members of society.

The chief objection in recent decades to the subjects that aimed to promote these ends has been that they were irrelevant, meaningless, and without functional value in modern civilization. It is forgotten that it is not the subjects in themselves but the spirit in which they are taught that gives them meaning and relevance.

During World War II and for some years later, liberal-arts colleges devoted their attention to consider how liberal education could be preserved and strengthened for the benefit of the nation. During the same period those responsible for secondary education turned their attention to the "imperative needs" of high-school students, issuing such reports as *What the High School Should Teach*, *Education for ALL American Youth*, and *Vitalizing Secondary Education*, with life-adjustment programs at the core.

Discarded along with the concept of liberal education was all that could be learned from tradition in favor of responding to the immediate needs of the students. The opponents of traditional values seem, however, to overlook the following statements in Dewey's writings. In a criticism of what might today be called the "do-it-yourself" type of education, Dewey wrote:

"If we generalize from such a commonplace case as the education of artisans through their work, we may say that the customs, methods, and working standards of the calling constitute a 'tradition,' and that initiation into the tradition is the means by which the powers of learning are released and directed." Dewey then elaborates to indicate how tradition may be made a factor in the personal growth of the pupil.

And, at another time, Dewey wrote: "The curriculum must be planned with reference to placing essentials first, and refinements second. The things which are socially most fundamental, that is, which have to do with experiences in which the widest groups share, are the essentials. The things which represent the needs of specialized groups and technical pursuits are secondary. There is truth in the saying that education must first be human and only after that professional."

Liberal education for all first, and marketable skills later!

Nevertheless, "tradition" and "essentials," to which "academic" and "liberal" were sometimes added, continued to be anathema to the professional educators. And even in recent years, when traditional subjects have been accepted as more or less respectable for the "academically talented," they are advocated as necessary for college entrance rather than as essential values in a liberal or general education.

Criticism of the tradition is not new and can be traced throughout the history of secondary education. The attack became most marked in the early years of the American Republic, when the tradition was denounced as "aristocratic," and a practical and contemporary training was urged to prepare men to make the most of the country's natural resources.

SEVERAL FACTORS

The general dilution and ultimate devaluation of the tradition were hastened by a number of factors. The investigators of the doctrine of formal discipline were misinterpreted at a time when educators, in the movement to expand educational opportunities upward, promised to enlarge the curriculum to suit the needs and interest of all students. In their eagerness to "sell" education, they misinterpreted the principle enunciated by the Committee of Ten and the Committee on College Entrance Requirements: All subjects within those recommended were equally good if competently taught for the same length of time.

New subjects were added until the high-school "offerings" amounted to more than 250. "Then it doesn't matter what you study?" Alice might have asked in this Wonderland of Education, and been given the answer, "No, so long as you accumulate the requisite number of points." The aims and principles of the educational tradition were never so completely rejected as when the high school was turned into a scholastic supermarket.

The basic values of the tradition are not inherent in the subjects themselves, but to elicit these values and to make them vital requires teachers with a mastery of content and the ability to get students to see meanings and appreciate values. The subjects have been perpetuated and exist not as school exercises to be submitted to tests or as tokens for admission to college. For, however well constructed the tests may be, they cannot measure the intrinsic values of the subjects, but only the strength of the framework on which these values are to be built.

The traditional subjects have been misused and taught either in the belief that they provided the means for mental discipline or for their own sakes, rather than for their value as instruments for promoting an understanding of the world of man and the world of nature. They contribute to "life-adjustment" in a more genuine and richer sense than the sense in which that term has been used in recent educational literature. •

The Church-State-School Problem

Harold H. Punke

In School and Society

Harold H. Punke is Professor of Education, Auburn University, Alabama. Reported from School and Society, *LXXXIX (May 1961), 222–26.*

To understand the safeguards for religious liberty in our legal structure, one must understand the cultural setting when the nation was founded – and subsequent trends.

The founders especially sought protection against two forms of tyranny: arbitrary government by royalty, and sectarian religion dominated by a priesthood. The two were considered at their worst when joined to reinforce each other–a state church.

Safeguards against both political and religious tyranny seemed especially important to men desiring a social system based on the personal liberties and potentialities of common people. This discussion is limited to relationships between state and church as they bear on public education. The basis for dealing with the issues appears in the First and Fourteenth Amendments to the U.S. Constitution.

Since, in effect, "the Constitution of the United States means what the Supreme Court says it means," concerning religious issues in public education and other matters of federal interest, rulings by this court become the law of the land.

The First Amendment embodies two concepts: prohibiting any law which would establish a religion (providing for freedom from state compulsion as to religious belief); and prohibiting any law forbidding the free exercise of religion (to guarantee freedom in practicing one's own belief). Cases involving public education which have reached the Supreme Court have concerned one or both prohibitions. The following is a presentation of some pertinent decisions by the Supreme Court.

A case from Massachusetts in 1905 dealt with the compulsory vaccination against smallpox of all inhabitants of a community. The decision upheld the right of a state to take compulsory measures to protect the health of persons who would not protect themselves, and to protect others who might contract disease from such persons. This included school children.

A second case from Massachusetts focused on the physical and moral health of children, as related to participation with their parents in street-corner religious activities.

It pointed out that the authority and solicitude of the state for children was even greater than that for adults. The court stated that neither the family nor religious liberty was beyond regulation in the public interest.

In protecting religious liberty in 1925, the court said that a state could not compel parents to send their children to a public school. A parent may send his child to a parochial school, provided it offers a type and quality of education equivalent to that of the public school in citizenship training and the usual branches of learning. Thus, the state may not deny religious instruction to a child if parents choose a school which provides education in nonsectarian areas which the state considers essential.

CHILD-BENEFIT THEORY

In 1930, the court upheld the use of tax funds in Louisiana to pay for school books distributed to children in parochial schools as well as for children attending public schools. The court accepted the reasoning of a state court that the books were for the benefit of the child and not of the school attended.

This child-benefit theory has been accepted to justify the use of public funds to transport children to parochial schools. A 5-4 decision in 1948 held that a New Jersey statute which provided for such use of public funds did not constitute support of a church or establishment of religion. The benefit and protection against highway accidents afforded by transportation accrued to parents and children, reasoned the court.

In 1943, the court reversed its decision of three years prior and held that children could not be expelled from a public school for refusal to salute and pledge allegiance to the flag. The court reasoned that freedom of worship was among a small group of unusual and preferred freedoms which the state could restrict only to prevent "grave and immediate danger to interests which the state may lawfully protect." There are other means by which patriotism and loyalty can be as effectively shown, the decision indicated.

The Supreme Court has rendered two decisions on the "released time" method of giving sectarian instruction to public-school pupils. Neither decision was unanimous. In one case instruction by clergymen approved by the superintendent of schools was given to pupils in public-school classrooms. Pupils who did not attend religious classes were required to leave their usual classrooms and continue secular studies in other rooms. The court held that the practice constituted a use of tax-supported property for religious instruction and a use of state compulsory attendance machinery to supply pupils for religious classes in violation of the First Amendment.

In another case, the released time was granted for religious instruction that did not take place in public-school facilities but at religious centers. Attendance and costs were the responsibilities of religious organizations, and pupils who were not released continued in their regular classrooms. The use of state compulsory attendance machinery to supply pupils for religious instruction was not resolved, as dissenting judges emphasized.

It is important that "released time" should not be confused with "dismissed time." Under the latter, pupils might attend religious classes or go fishing. There probably would be no question about the constitutionality of "dismissed time."

In examining litigation at lower-level courts, it is revealed that many disputes on public-school practices concerning religion never reach the Supreme Court of the United States. Moreover, several states make constitutional and legislative provisions concerning religious liberty or separation of church and state which vary from federal provisions. Since the regulations and interpretations involved in such disputes vary from one jurisdiction to another, there is uncertainty on what the Supreme Court might allow if ever the disputes reach it.

However, it is noted that such cases have related to Bible reading, rental of church property for public-school purposes, use of school property for religious meetings, wearing of religious garb by teachers in classrooms, distribution of religious literature through public schools, holding graduation exercises in churches, sale of school property to a church at a reduced price, compulsory school attendance and religious holidays, teachings which are contrary to the Bible, social dancing in the school program, and retirement credit for teaching in parochial schools.

Mr. Justice Roberts stated in 1940 that the First Amendment embraces freedom to believe and freedom to act. He added, "The first is absolute, but in the nature of things, the second cannot be. Conduct remains subject to regulation for the protection of society."

However, conduct has been restricted only where society would suffer pronouncedly from unrestrained freedom of action. But changes in social conditions, and perhaps in court membership, bring new rulings—and reexamination of old ones. The situation may foster religious liberty, but it reduces predictability as to what public schools may do.

Will there always be conflict between church and state in American education. "Always" implies a long time. Legal controversy is significant only in a society which respects both parties to an issue. If the state is vigorous and developing, and the area of philosophy and values of religions are also vigorous and developing, one should expect future conflict between them. Conflict will relate to public education as well as to other functions of government. •

Six Rules for Administrators

Don't Lose Local Control—by Default

LLOYD W. ASHBY

In The Nation's Schools

WHILE tradition and the philosophical leanings of most Americans favor local initiative and control of their schools, the tide of affairs is moving in a contrary direction.

The miscellaneous nationalizing influences are many. A few, with no attempt at ranking, would include federal aid through the National Defense Education Act (NDEA), national testing programs, national associations of professional and lay groups, the major foundations, including the Conant reports, voluntary regional accrediting associations, the United States Office of Education, mobility of population, and the national hysteria as to the role of the school in the current world situation.

How does a local administration maintain its integrity? How does the little David of the local community deal with the mighty Goliath of national pressures? The answer does not come easily. It is true that the *form* of local control will likely remain, since it is strongly embedded in the laws of the several states; the question is whether the *substance* will remain there.

The first suggestion is that the problem should be recognized. The clock cannot be reversed. Willy-nilly, nationalizing and internationalizing influences are at work. Nor would I argue against the need and the propriety of nationalizing influences. But the danger is not at this end of the scale; the danger is that local control and initiative can and are being lost by default.

The following suggestions seem to merit consideration in the quest for integrity and initiative at the local level:

There must be, first of all, integrity at the local administrative level. The administrator must *have* integrity before we can talk about maintaining it. If the local leader lacks an adequate philosophy and sense of direction, it is quite obvious that he will be torn by demands from many quarters, both near and far. This means that the local leader must read widely, ex-

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periment carefully, welcome promising innovations, and, in general, become something of an educational statesman. He must recognize that he serves the national community as well as the local community.

Implication: The new generation of administrators must be better people, better trained for the tasks ahead.

There must also be essential integrity in the board membership if the school system is to maintain integrity as a unit. The local board member must be an intelligent individual motivated only by the best interests of the school. Politically motivated action has no place here, although intelligent board action is politics of the highest order.

Implication: The local community must find the way to place only high caliber leaders of the school district on the board of education. This is a must if integrity is to be achieved and maintained.

RESIST PRESSURES

My third suggestion is that the administration and the board must jointly resist undue pressures from all directions. This may be made manifest by a plain refusal to participate in such programs as testing programs of doubtful value, or in refusing to grab for NDEA money when it leads to imbalance in the program, or in being careful not to join the bandwagon philosophy, or in resisting the notion that a particular practice must be adopted if the school system is to be highly regarded, or in objecting to the premise that change and innovation are not needed.

All this means, in effect, that the school program is one that is indigenous to the community and one that helps the schools reach particular and realistic goals in accord with a developed philosophy.

Implication: The local administration and board must have a good solid backbone and a desire to have good schools for good reasons. Nothing will substitute for these.

SCHOOL REORGANIZATION

The school population of the local district must be large enough to make good schools possible. Districts can be too small and they can be too large for effective control at the grass-roots level. Schools have made progress in reducing the number of districts, but there remains much to be done in redistricting. Otherwise, local control may go by default in substance, whereas the form remains. While size is far from the determining factor in the search for quality, it is nonetheless one of the foundations on which quality may best be developed.

Implication: School reorganization programs are needed in many states if other than the semblance of local control is to remain.

The local district must continuously carry on experimental and research programs that are carefully evaluated. Such programs afford needed research and opportunities for special projects where the capacities and interests of capable staff members can be recognized and used to good advantage. Some research is best carried on at a level with greater resources than the local system commands, but there is a vast field where the local system can and should be working effectively.

Implication: A percentage of the local budget should be devoted annually to research and experimental projects.

Leadership at the state level is most important. Some state departments act as buffers against national pressures that are reflected at the community level in local districts. They also have the opportunity, not always realized, to provide general guidance and to assume a role in leadership through the expression of a philosophy, as well as specific aids and routine chores. In New Jersey, a county superintendent of schools is appointed by the commissioner and represents the state department at the county and local level, a practice worthy of emulation elsewhere.

Implication: It is imperative that there be strong, professionally oriented leadership at the state level. Additional financial support is required to carry on this work effectively.

It should be understood and underscored that federal aid, in my opinion, does not mean federal control. The arguments presented here are for local control; they are not arguments against federal aid based on legislation designed to leave control in the states and local districts. •

Local and State Decisions

• A member of the board of education, who could not be persuaded to replace the old text books, called the superintendent one night and exclaimed excitedly, "We must call a meeting of the board! We must have up-to-date books, and immediately!"

The surprised superintendent asked him what had convinced him that a change was needed. The board member replied, "A problem my boy read out of his arithmetic book. It begins: 'If a plumber gets three dollars a day . . .' "—From *Midland Schools*.

• Politicians have accused the schools of major and minor foibles, but we don't think schoolmen have ever made a "boo-boo" to top this one: The Colorado legislature somehow voted to abolish all local school taxes as of June 30th. It had to be called into special session to correct the error.—From *School Management*.

An Answer to Critics

Too Much Emphasis on "Methods" Courses?

EARL J. MCGRATH and CHARLES H. RUSSELL

In Are School Teachers Illiberally Educated?

Earl J. McGrath, former U.S. Commissioner of Education, is Executive Officer, Institute of Higher Education, Teachers College, Columbia University, New York. Charles H. Russell is Associate in Higher Education, Office of Assistant Commissioner for Higher Education, New York State Education Department, Albany. Reported from Are School Teachers Illiberally Educated?, *published by the Bureau of Publications, Teachers College, Columbia University, 1961, 25–28.*

CONTROVERSIES over the education of elementary-school and secondary-school teachers revolve principally around two issues. Critics contend that teacher-preparing institutions impose excessive requirements in pedagogy, particularly in methods courses and practice teaching. Critics also charge that the broad liberal education of teachers is restricted as a result of these requirements.

Under a grant from the Carnegie Corporation of New York, the Institute of Higher Education undertook an analysis of undergraduate curriculums in professional schools. A special feature of the study was a comparison of the amount of professional subject matter included in schools of education with similar professional subjects in other undergraduate schools. The primary purpose of the comparison was to provide a body of factual data which can be used in assessing the validity of the criticism leveled at the education of teachers.

An effort was made to select a representative sample of teacher-training institutions. Accordingly, a sample of 35 institutions was selected from the membership of the American Association of Colleges for Teacher Education. The sample included 13 state colleges, five teachers colleges, seven schools of education in state universities, three schools of education in private universities, six departments in private liberal-arts colleges, and one municipal university.

Specifically the inquiry was designed to show how much instruction in pedagogy prospective teachers are actually required to pursue, how broadly the intending teacher is educated in the liberal-arts discipline, and how the specialized professional instruction in the education of teachers compares in quantity with vocationally oriented instruction in other undergraduate professional schools.

The following summarizes the findings of the study and gives reasonably complete answers to the preceding questions.

On the average, prospective elementary teachers receive about 36 percent of their total undergraduate instruction in courses directly related to their professional work. The comparable percentage for secondary-school teachers is approximately 17 percent.

Not all this professional instruction at either level is classifiable as "methods," as the critics contend. A considerable amount in each instance includes such basic subjects as the history and philosophy of education and psychology, which, if properly taught, contribute as fully to values of higher education as do other subjects generally found in the liberal-arts curriculum.

Though the averages of professional education for teachers are not far out of line, those above the midpoint ought to reconsider their curriculum. Extreme cases suggest that some institutions do require entirely too much instruction in pedagogy. It is doubtful that institutions at or below the average could materially reduce requirements in education without impairing initial teaching effectiveness of their graduates.

COMPARISON

The study revealed that students pursuing teacher-education curriculums receive on the average much less professional instruction than students in a number of other undergraduate schools. Students in some professional schools in university communities receive two or three times as much technical, vocationally-related instruction as those training to become teachers.

Some teacher-education curriculums are excessively professionalized. Examples are agriculture, music, and physical education. They should be made more general. However, the bulk of the technical instruction is related to the subject field and not to the processes of teaching. But even in these groups, it can be stated that many schools and departments of education are modest in their specialized requirements.

To the extent that requirements in the broad range of liberal arts are a function of a liberal education, teaching is again distinctive among the professions studied. The mean requirements in the "general" category vary all the way from 4 percent in music to 36 percent in secondary and 39 percent in elementary education. So far as breadth of education is a factor, teachers clearly have a more comprehensive knowledge and a greater variety of intellectual skills to deal with the complex problems of modern life than do the average graduates of other schools.

These facts lead to the conclusions that critics of the preparation of teachers ought to be certain to examine a representative group of institutions. Some teachers are inadequately prepared, some have lost contact with major developments in their subjects, some perform in such a routine and uninspiring manner as to suffocate their students' intellectual interests, and some compare unfavorably with members of other professions in basic intellectual ability. The majority, however, when they leave their undergraduate institution are able, dedicated, and informed.

No matter how badly needed certain changes may be in those institutions which still operate on the old normal-school conception, it will require something more than tinkering with the curriculum to raise the general level of the profession to the standards exemplified by the best. If the teaching profession attracts too few of the highly competent intellectually, as a number of studies have shown, the cause must be sought not exclusively in the dullness or the excessiveness of courses in pedagogy, but in part in the relative attractiveness of other occupations.

In this materialistic and status-seeking society, it is naive and unfair to expect teachers to pursue long programs of preparation for a profession which offers limited financial rewards. Only as salaries rise in terms of purchasing power, and in relation to compensation in other vocations, will the profession of teaching be able to compete in the open market for its full share of top-level minds and devoted workers.

Nothing would do more to raise the general level of teaching in this country than a new image of the teacher and a new respect for the institutions which prepare teachers. That image should be formed from factual information accurately presented. Fair criticism of teachers and institutions which prepare them is healthful and desirable; the unrestrained and misinformed attacks on both can do harm. •

Pupil-Parent "Methods"

• A FATHER had to borrow a dollar from his thrifty first-grade daughter to pay the paper boy. The next morning, worried that he had taken her lunch money, he went to her classroom, knocked on the door, and asked to speak to her. "Do you have any money?" he asked anxiously. "Yes," she answered in tones clearly audible to the teacher, "but you can't have any more. I gave you all I could spare last night."—From *Texas Outlook.*

• "I NEED 50 cents," the small boy told his father. Asked why he needed the money, he replied, "My teacher is resigning from school and we are raising money to give her a little momentum."—From *Minnesota Journal of Education.*

• "DAD," said the fifth-grader, "there's a special PTA meeting tonight—just you, my teacher, and the principal." —From *Florida School Bulletin.*

Democracy Is Not for Children

DONALD W. ROBINSON

In Phi Delta Kappan

WHAT is the proper place of democracy in the classroom? There are several misconceptions concerning this question. These misconceptions threaten the efforts of some of our schools to inculcate democratic concepts, and worse, they sometimes lead to perversions of the democratic ideal.

The first error is the assumption that democracy can be established in the classroom. The first principle of democracy is the selection of leaders by members of the group. The leader in the classroom is imposed on children who have no voice in the matter.

Student officers can be elected by students. And they can operate under the eye of a benign dictator. The experience of going through the motions of selfgovernment under surveillance of an adult authority is not designed to develop independent thinking and acting in the embryonic citizen, no matter how friendly and permissive the authority may be. While the experience may develop civic virtues, it should not be called democracy.

A second distortion of the democratic concept results from inevitable simplifications of a complex political theory. Effective democracy requires cooperative action of mature, independent, intelligent people who know how to make judgments, to compromise, and to participate in executing a policy even while they work for a change. This requires an adulthood that many people never attain and that almost none can achieve during childhood or adolescence.

Donald W. Robinson is a teacher of social studies at Carlmont High School, Belmont, California. Reported from Phi Delta Kappan, *XLII (May 1961), 361–62.*

When a child learns to add figures we do not call him a mathematician. Why should we allow him to think that conducting a class vote under the supervision of the teacher is democracy? It is a lesson in democracy, nothing more. Great damage results from allowing students to associate the word democracy with an experience considerably less than the real thing.

Although the gradual assumption by the child of increasing areas of responsibility is essential, the teacher must determine those areas. Almost by definition, a child is not equipped to make judgments about the areas of responsibility he is capable of assuming. It is an error if every time the child is allowed to make a decision he is told that this is democracy. Permitting the child to decide what he will eat for lunch or which of two books he will read can be excellent training, but it has virtually no relation to democracy. Using this word in a wrong context has done much to subvert the true meaning and to weaken the practice of democracy.

Another common error is use of the phrase, "We must all follow the majority rule; that is the democratic way." The advice is technically correct but can result in serious misconceptions, because the child is too immature to understand the difference between obeying and agreeing.

The child must obey the rule that has been established by the teacher, whether or not pupils were consulted in making the decision. In a wholesome, democratic setting the child should be encouraged to maintain his dissident views, express them, and work for their adoption, even while he obeys the distasteful majority rule. To omit this part of the democratic concept from classroom experience is to give the child a false notion, pushing him closer to mass conformity, conditioning him to accept what the majority approves.

Still another peril lies in attempting to apply majority rule on inappropriate occasions. Democracy's toughest problem will always be the day-to-day decisions as to when the people should be consulted and when the people's representative should act on his own judgment, expert or not. Giving a student some option in his work assignment is reasonable. Having a class assignment determined by majority vote makes very little sense and distorts the nature of democracy. There is always the ludicrous example of the class that was asked to decide by democratic vote where Alaska is located.

One more weakness in the attempt of some schools to provide experience in democratic living is the temptation to emphasize rights far more than responsibilities. This leads to the anarchic or "beat" attitude expressed as, "I have the democratic right to do what I want, and I want to do nothing. I'm not interfering with anybody else."

A more realistic approach for the schools might be to stress that democracy does not mean freedom as much as it means responsibility. Above all, students should be reminded that in a democracy agreement isn't necessary; participation is.

Some of the pitfalls, then, lie in assuming that a truly democratic classroom can be established, oversimplifying the concept of democracy, encouraging agreement with the majority, applying the voting procedure at inappropriate times, and emphasizing rights out of proportion to responsibilities.

Of course, students should learn some democracy in school, and they must learn as much as possible by democratic experiences. But these experiences must be carefully defined and properly executed. •

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BILL G. RAINEY

In Business Education World

Bill G. Rainey is a member of the faculty at Murray State Agricultural College, Tishomingo, Oklahoma. Reported from Business Education World, *XLI (June 1961), 12–13.*

LAST year I made a study of the status of professional writing in 129 colleges and universities as it relates to employment, promotion, and salary. I do not intend to present the results of my investigation here; however, I want to mention one or two significant points revealed by the study that are relevant to this article.

I asked the presidents of the 129 colleges and universities if professional writing had a favorable effect on employment, promotion, and salary in their particular institutions. The affirmative response, by categories, was: junior colleges, 40 percent; senior colleges, 90 percent; universities, 100 percent. Also significant was the fact that more than 95 percent of the presidents expressed admiration for the teacher who had the ability, interest, and perseverance to write in addition to his teaching and other duties.

Although professional writing is not a requirement for employment, promotion, or salary increases at the elementary and secondary levels, it is logical to assume that here, too, the person who puts forth the extra effort necessary to write for publication will be looked on with favor by superintendents and principals. At any level, it is good publicity for the school to have a writer on its staff.

In line with my own longstanding interest in encouraging teachers to write, I recently surveyed 16 outstanding educators, requesting these leaders to give their opinions of the advantages of a classroom teacher's writing for the professional journals. Collectively, these educators have written close to 1,200 journal articles in addition to numerous textbooks, monographs, and so forth. Because there was, as might be expected, some duplication in the points they made, I shall present their answers in the form of a summary:

The writer cultivates the habit of sharing with other teachers his teaching problems and successful experiences.

Writing keeps the teacher's enthusiasm and satisfaction in his work at a high pitch.

Writing articles of recognized quality enhances the value of the teacher to the employing institution and sometimes leads to other opportunities to be of service to the profession.

Writing helps to keep the teacher up to date in his field, since, in writing, he has some obligation to evaluate critically what others have written on the same or similar subjects.

The writer profits from the exercise of pulling his thoughts together and expressing them coherently.

Writing makes possible greater professional contacts by introducing the writer and his ideas to readers. From this the writer achieves recognition, enjoys esteem, and increases his chances of qualifying himself to become a leader in his profession.

A minor success in writing often leads one to attempt new and better ideas.

Writing develops an appreciation of research and report writing and is a demanding intellectual activity if it is properly done.

Writing makes the teacher thoughtful—and, therefore, more effective—in regard to his own teaching, if only "to have something to write about."

Writing rejuvenates the teacher's interest in his own professional status and activities and in his regard for professional leadership by himself and by others.

Writing encourages one to experiment and to be creative.

Writing helps to sharpen and crystallize the teacher's thinking in connection with what he is doing, and attempting to do, in his own classroom.

A teacher who writes with insight will stimulate his fellow teachers by communicating his ideas and experiences.

By recording in words what he believes, the teacher is frequently able to see his thoughts more vividly, to note relationships heretofore unobserved, and to raise significant questions still unanswered. Weaknesses and fallacies in thought are also revealed.

Through research and experimentation that culminate in writing, new knowledge is discovered and made a part of the culture.

A bibliography of articles is a valuable asset when the writer is applying for a new position or is being considered for a promotion or higher salary. •

Can Teachers Write?

CAN teachers write a satisfactory application letter? Only about half of them can, said superintendents in a recent survey. Poor spelling, poor grammar, poor organization, vague language, incorrect statements, and lack of vital information . . . these are the more important criticisms superintendents made about the applications they receive. —Virgil Harder in *The Journal of Business Education.*

If the Shoe Fits . . .

A Letter to Virginia

MAX S. MARSHALL

In

Peabody Journal of Education

THIS is an actual letter mailed March 1, 1961. We feel that it carries an important truth for all concerned with education.

Max S. Marshall is Chairman, Department of Microbiology, University of California Medical Center, San Francisco. Reported from Peabody Journal of Education, *XXXVIII (May 1961), 321–22.*

University of California
Medical Center

Dear Virginia:

You ask me for "any information you might have on bacteria harmful to man." Since I have spent my life on this subject, and so did my father before me, and since I am, I am sure, older than your father and mother, I cannot send you all the information I have without sending you my library and writing a book for you.

The best I can do is to send you a book, under separate cover, which you can put in your library when you are through with it, either your own or in school. I am also sending you an article I wrote about this kind of question, which I hope you will give to your teacher. Possibly he or she will not like it, so tell him or her that you are not to blame.

You see, your teachers are trying to stir up in you an interest in what goes on about you, but teachers have fallen in bad ways in some of the things they do. If they told you how to use the library or helped you find a book and to read it, then you would be growing with your learning. Even when they teach you to write a pleasant and correct letter, perhaps you learn something, though I think you can figure this out for yourself.

But, when they get you to ask someone to do your work for you, then they are robbing you of a chance to do your own discovering by thinking, by searching, and by studying. They are teaching you to depend on others when you are just learning to enjoy depending on yourself. If this goes on, you will become not only dependent on someone else all the time, which is no fun and is not necessary, but also you will find yourself believing everything you are told, without thinking and what you are told will not always be as good as something you thought out for yourself. You do not want to be a checker, being pushed around all your life over a checkerboard. You want to be the one who plays checkers, and wins some of the time.

I am trying to help you with your project, but help a little more than that. My students are mostly 24 years old or about that, and I get not only letters like yours but I see what happens when students subjected to this sort of thing try to do advanced work. Some of them still think that, if they telephone to someone and ask a question, they have performed a great mental task. You be the one to whom they telephone, not the one who does the telephoning.

Sincerely,
Max S. Marshall.

Information Wanted

- A teacher in California, concerned about the kind of lunches one of her fourth-grade boys was bringing to school, decided to make a check. Said the boy's mother over the telephone: "I have five children to get off to school, a husband to get off to work, and twin babies to take care of in the meantime. So I have a well-stocked refrigerator and cupboard in the garage, and the children and their father make their own lunches. Is anything wrong?" "Well, I just wondered," said the teacher, "if you knew that for the past few days Billy's lunch has consisted of two bananas and a can of beer."—Mrs. J. D. Dickerson in *Saturday Review*.
- An elementary teacher in Michigan reports that the most confusing question asked by a pupil was, "What are we supposed to do after we get done doing what we are supposed to be doing."—Frederick J. Moffitt in *The Nation's Schools*.
- The teacher in the first-grade classroom had given one group of youngsters some modeling clay while she was working with another group. Finishing her work, she gave this second group some clay also. As she stood in the middle of the room, thinking about what she would do next, one of her bright pupils noticed her and said, "Why don't you get busy and do something, Mrs. Cunic? We're all busy."—From *Samuel M. Taylor*, Principal, Union City, Mich.

A Critical Need

Standard Educational Terminology

ALLEN R. LICHTENBERGER

In School Life

COMPARABLE educational information is a most urgent need in American education. Problems important to every segment of education grow more complex year after year due to this need for comparable information. But items of educational information can be compared only on the basis of common definitions, and we have not yet achieved that uniformity.

Take the term "teacher," for instance. It is not always used in the same way. Some reports count as teachers the staff members who may or may not have part-time classroom duties, such as principals, librarians, and supervisors. The number of "teachers" in such reports cannot be compared with the number of teachers shown in other reports counting only properly defined classroom teachers. Until all reports on teachers use the same definition, there can be no reliable comparison without time-consuming adjustment of reported data.

Another example would be "school," a term used so widely that a definition would seem unnecessary, and yet the term is not used consistently or accurately in many instances. A count of "schools" may actually be a count of school buildings, school plants, or school districts, none of which would give an accurate count of "schools." An elementary school and a secondary school housed in a single building are each a "school," just as one school housed in several buildings is a school. Yet reports do not always make such a distinction.

Allen R. Lichtenberger is Specialist in Standard Terminology and Definitions, U.S. Office of Education, Washington, D.C. Reported from School Life, *XLIII (April 1961), 23–26.*

These examples are mild compared to such terms as "director," "coordinator," and "supervisor," three terms often used interchangeably.

It should be needless to give more examples. The important point is: We can compare items of educational information only on the basis of common definitions. When an item is discretely defined, *widely used as defined,* and the data it produces need no adjustment when accumulated, we can say that it and its definitions are standardized.

Data based on standardized definitions are comparable. When we have standardized most items of educational information and their definitions on a national basis, we will be on our way to achieving a high degree of comparability. Clearly, the basic task is to standardize items of educational information.

The need for comparability of educational statistics has long been recognized by educational leaders. They have made many attempts during the past 50 years to introduce programs for establishing a common language. It is unfair to say that the efforts have been ineffective—it is the enormity of the task of achieving universal agreement that has limited success in achieving standardization.

IDENTIFY ITEMS

Before we can define an item of information, we must first identify it. From 1912 to 1940, programs introduced to achieve "uniformity" fell far short of their goal but did result in the identification of many items logically a part of organized systems of educational records and reports. Moreover, they established the foundation for most of the divisions of educational accounting and reporting and for many of the terms of communication now commonly used. Such items as average daily attendance, capital outlay, debt service, revenue and nonrevenue receipts did not become part of school records by accident—they were adopted by deliberate choice.

Programs before 1950 emphasized improvement of record forms, report forms, procedures, and channels of reporting. They gave little attention to improving data items at their source, that is, what was recorded, how it was worded, and the meaning of each item. If the programs *had* emphasized improving each item of data at its source, a greater degree of comparability of educational terminology would exist today.

Data-processing machines are becoming an essential part of record systems at all levels of education. Increased use of this equipment has improved the mechanics of collecting information and dramatized the need for standardizing data at point of origin. The principal function of data-processing machines—the rapid treatment of great amounts of information—is lost when the basic items fed into them are not standard and comparable. Speeding the flow of data from local school systems through state departments of education to national levels is futile and costly if the data have limited uses because they cannot be reliably compared, combined, or used effectively in summaries, research, or planning. Very few items of educational data can now be used in a nationwide system of automatic processing.

Data items do not become standardized merely by chance or through use. Comparability can be achieved only through a program designed to identify and define the items and encourage universal use of the items of education as defined.

Since 1951 the Office of Education, state and territorial educational officials, and representatives of national organizations have been working cooperatively to standardize terminology. Handbooks defining educational terms in the areas of state educational reporting, school finance, and school property have already been prepared, published, and issued. Handbooks are now being prepared on pupil and school staff personnel. Before the handbooks are issued, hundreds of representatives of school systems and state education officials study and discuss each item and agree on each definition to be included.

Although much work remains to be done before the definitions in the handbooks are adopted and *used* on a national basis, progress is being made. Twenty states have already adopted the national-handbook definitions on school finance. It is very likely that by 1963 nearly all the states will be using standard school-finance terminology.

Still, there is an enormous amount of work to be done. We need to identify and define terms for the instructional program, subject-matter fields, instructional services, and auxiliary services related to school management and operations. In addition, many materials must be developed to assist school systems in using the defined items.

At the present rate of identifying and defining items of educational information, standardization will not be complete for at least two decades. Efforts must be intensified, and this will require greater leadership from state departments of education and the U.S. Office of Education.

A committee of the Council of Chief State School Officers clearly set forth the roles of these agencies as early as 1929 when it described the problem of standardization and said that the job is "one of mutual state approach with or without the aid of the federal government . . . Since, however, the very problem is that of the federal system of education statistics, and this in itself is possible only to the extent that statistical uniformity exists among the states, the participation and aid of the federal government comes to be an essential."

American education cannot afford to wait years to achieve comparability of educational information. Nor need it. We can achieve a high degree of uniformity within a relatively few years by intensifying our efforts to acquire manpower and financial support in proportion to the size of the task. •

Misunderstood Terminology

THE teacher added a note to Johnny's report card, saying, "Johnny is not contributing." The next day Johnny came to school with a scrawly note which read, "We don't have much money, but here's a nickel."—From *Midland Schools*.

Some Reasons Given

Why Few School Systems Use Merit Ratings

In NEA Research Bulletin

"THE best teachers deserve the highest salaries. The only fair way to pay teachers is to rate them all and then pay them according to how good they are," say many school-board members, parents, and other friends of schools and teachers. The report of the President's Commission on National Goals stated recently that merit pay should be universally adopted, with appropriate safeguards to insure fair treatment.

Although merit pay for teachers sounds sensible, practice does not agree with theory, as many school systems have found out.

The NEA Research Division is often asked why merit schedules have been abandoned. Seeking an answer, the Division asked this question of 91 districts that in at least two different years in the preceding 21 had included superior-service maximum provisions in their salary schedules, only to drop them later. The kind of merit pay called a "superior-service maximum" authorizes the board of education to award superior teachers higher salaries than may be paid by the regular schedule to teachers of less than superior ability.

Nearly two-fifths of the 71 replies said that the plans had not been put into effect, or were not really merit plans. About a tenth said the plans were still being used (although not included in the printed salary schedules). Another tenth agreed that the plan had been dropped, but were noncommital as to the reasons.

Reported from NEA Research Bulletin, *XXXIX (May 1961)*, 61–63.

Thirty replies gave at least a partial explanation for the rescinding of the merit provisions. These systems employ some 50,000 classroom teachers and represent a wide body of experience. The summary of replies listed below reflects, as nearly as possible, the actual words of the free-answer responses of school officials to the question, "Why was the plan dropped?"

Evaluations unsatisfactory.—Difficult to determine who deserved the extra pay; not enough data to support evaluation; no assurance that rating was accurate; evaluation subjective; inconsistency among principals; no satisfactory instrument for evaluation; impartial rating impossible.

Dissension created.—Plan was controversial; dissatisfaction, friction, ill will, resentment, or misunderstanding among teachers tended to create suspicion and distrust.

Ratings not based on merit.—Majority of teachers received top ratings; awards given on basis of seniority; rating was not discriminative, was passed around.

Sense of injustice created.—Some felt it was unfair; there was suspicion of discrimination; morale was low; charges of favoritism were made.

Opposition by teachers organizations.

Quota system restrictive.—Quota system froze out opportunity for younger teachers, was arbitrary.

Burden on raters.—Not sufficient supervision to give assurance of accuracy; too heavy a burden on limited number of people; much record keeping; evaluation process cumbersome.

Partial financing cause of resentment.

Discontinuance recommended by a survey.

Poorly inaugurated.—Was imposed without consent of teachers.

The basic reason for giving up plans of merit pay appeared to be that no satisfactory plan had been developed for selecting the superior teachers. The corollary, stated with equal frequency, was that the plans had created dissension. Words such as ill will, friction, resentment, misunderstanding, and suspicion were used in reporting the negative reactions of the staff.

STATE PLANS

Laws in Delaware and in New York requiring state-wide plans of merit pay for teachers have been repealed—Delaware's in 1947, New York's in 1955. These plans seem to have been eliminated for the familiar reasons—the ratings proved so undependable that teachers and administrators became dissatisfied and the plans were abandoned. On the other hand, a plan was put into effect in Florida in 1960-61. Each school system in the state is required by law to provide career increments on a merit basis. The Florida Education Association, in its 1961 legislative program, has recommended that the plan be made optional rather than mandatory.

The Utah School Merit Study Committee, appointed in 1953, has sponsored local studies for developing evaluation methods that might be used in merit-pay plans. At least one of these local studies is still in process. Recent recommendations by the Committee for continued state support of local merit-pay studies or merit plans were rejected by the 1961 Utah legislature.

THE 1960-61 PICTURE

For 1960-61, a preliminary count identified 701 schedules from school districts 30,000 or more in population. Fifty-eight of these schedules, or 8.3 percent, authorize or require that superior service be rewarded with higher salaries. Fourteen of the 58 schedules (2 percent) are in Florida; these have been mandated by the state. The 58 also include 12 schedules (1.7 percent) in which superior-service maximums have been reported in earlier years as inoperative. The remaining 32 school districts (4.6 percent) have voluntarily adopted and, so far as is known, have put into effect plans for rewarding superior service.

Two of these 32 schedules are in districts of 100,000 or more population; the remaining 30 are in districts of 30,000-99,999 population.

If it is assumed that merit rating for salary purposes is desirable, and that the only drawback is failure to develop better instruments for ranking teachers according to efficiency, further efforts at valid identification of superior teachers seem to be the key to solving the problem. Most school systems include both elementary and secondary schools. Criterions are needed that apply fairly to teachers of many different subject fields and of pupils of various ages. Extensive efforts in the past to develop such measures have met only limited success.

However, if the aim of the salary policy is to improve the professional service that teachers can give their pupils, it seems doubtful that the best approach is through discriminative ratings for salary purposes. A schedule is needed that offers salaries high enough to attract persons of professional ambition and promise and that rewards experience and advanced preparation. Except that existing salaries are commonly too low, this is the typical kind of salary policy today. It leaves to other phases of supervision and administration the responsibility for eliminating teachers who do not meet basic requirements of proficiency, the responsibility for creative evaluation of every teacher, and the responsibility for recognizing unusual abilities and of giving to their possessors the freest opportunity possible for contributing to educational advancement. •

Other Viewpoints

- Teaching is the only profession I can think of that calls on most of its people to do essentially the same thing for the same pay. I doubt that the need for more first-rate teachers can be met as long as this system remains . . . I am suggesting that teaching may have to develop a hierarchy of specialized jobs that will give the capable, ambitious teacher much greater opportunities to earn higher pay, greater responsibility, and more prestige.—*Michael Ference, Jr.,* executive director, Ford Motor Company Scientific Laboratory.
- The American educational system lags behind Australia's in evaluating teachers. It would seem that everything in education is being carefully evaluated here except the most important factor of all—the teacher. In Australia, teachers' salaries are largely based on the teacher's performance on the job rather than on academic qualifications, as in America.—*Richard L. Whitford,* Tasmania.

What Does Current Research Say about

Poor Readers in High School and College

ARTHUR S. MCDONALD

In Journal of Developmental Reading

Arthur S. McDonald is Director of Reading Services in the Division of Adult Education, Marquette University, Milwaukee, Wisconsin. Reported from Journal of Developmental Reading, *IV (Spring 1961), 184–192.*

THE results of research studies concerned with reading disability at the high-school and college level are often contradictory.

Despite the conflicts and disagreements, the consensus among researchers is that no single cause or factor can be held solely responsible for reading difficulties. A constellation of related factors is practically always found in cases of reading disability, if the research has been adequately designed and executed. Therefore, in any discussion of individual factors affecting reading performance, it should be kept in mind that they always interact.

The literature shows no conclusive study indicating that physical factors are significantly related to reading disability at the high-school and college level. Nevertheless, one recent research project has suggested that some types of severe reading disability may result from faulty mediation of nerve impulses in synaptic transmission due to chemical imbalance.

Psychological theory and practice have established relative functional independence of two large sectors of intellectual abilities: *nonverbal factors,* the ability to deal effectively and precisely with quantities as contrasted with *verbal factors,* the ability to deal with less precise, often affectively toned verbal constructs. Several studies have found that disabled readers often have high measured intellectual abilities in the nonverbal or performance area and poor measured abilities in the linguistic area.

The author participated in a project concerned with 50 disabled readers of high-school age and 50 disabled readers at the college level and got results similar to those reported by George D. Spache for elementary-school children. The results indicated that disabled readers did better in tasks involving social comprehension, ability to recognize relationships between verbal concepts when presented orally, in attention to details, and in simple manipulative tasks than they did in tests reflecting attention, concentration, fluency, and freedom from distraction.

The home and the school are also factors in reading disability.

A number of researchers have reported that inadequate home-family relationship situations were found in a majority of reading disability cases. It may be pointed out that deficiencies in interfamilial relationships are often closely related to inadequate emotional development.

POOR SCHOOL PRACTICES

In regard to schools, there are a number of practices in the educational system which tend to produce defective readers. Some of these are inadequate preparation for the work-type reading in content fields necessary at high-school and college levels; lack of training in mature reading; the absence of true reading instruction in many high schools; and educational policies which keep the high-school students *in* his group but fail to make him a member *of* his group.

Increasing attention has been given to the relationships between reading and emotional status. Many writers have pointed out that reading disabilities are accompanied by more or less severe personality difficulties. On the other hand, there are some researchers who did not find reading to be significantly related to personal adjustment. Jack A. Holmes concluded that, for his samples of college students, the data did not support the hypothesis that a strong relationship exists between reading disabilities in either speed or power of reading and any particular syndrome of personality traits.

Still, disabled readers at the high-school and college levels often manifest definite emotional maladjustments and it has been emphasized that every person dealing with poor readers must be alert to the presence of complicating emotional problems, which have repeatedly been shown to interfere with learning.

There are a number of overtly expressed deficiencies characteristic of high-school and college disabled readers that have been identified. These characteristics are: general vocabulary lacks, poor spelling, deficiencies in word sense, weakness in word recognition and structural analysis, selfconcept of being a poor reader, desire for more speed, lack of retention, inability to concentrate, tendency to give equal stress and value to every word, search for the *one* best way to read, procrastination and cramming, and nervousness, restlessness, and fatigue caused by reading.

Beulah K. Ephron has termed most of these "surface patterns" and reports that they are various expressions of fear: fear of taking chances, of making mistakes, of succeeding, etc.

Maurice D. Woolf noted the presence of fear together with evidence of many symptoms associated with frustration. Alton L. Raygor and his associates found that college students with reading disabilities differ from the achieving college students in what they say and feel about reading. Such reports were significantly negative in tone and effect. Students who improved their reading by means of work in a reading clinic manifested a general trend of personality change in the direction of decreased anxiety, increased emotional stability, and selfconfidence.

Other studies show poor readers have a lack of selfunderstanding and a delay in identification with adults of the same sex as well as indications of low morale, extreme anxiety, and rigidity for the disabled readers.

There are certain difficulties in carrying out research on the relationship of emotions to reading disabilities that should be kept in mind. These difficulties include: biased populations available to the study; approach to the project with a possibly biasing attitude toward the importance of educational or psychological factors; paucity of means for adequately controlling within-group variability while comparing to inter-group variability on a number of variables; superficial evaluations of personal adjustment; inadequate determination of reading status; and failure to equate groups on basis of emotional factors for comparison on reading achievement.

EMOTIONAL FACTOR

Conclusions from research undertaken by Marjorie S. Johnson on the emotional factor in reading disability include the following points:

There is no single personality trait or combination of traits invariably associated with either success or failure in reading. Variability of personality structure will be great within groups of both achieving and disabled readers.

Personal maladjustments which lead to inability to attend and concentrate will have a negative effect on the development of reading ability.

The presence of the very serious symptoms of personal maladjustment is more frequently associated with failure in reading than with success.

Emotional problems and reading disability occurring together are likely to aggravate each other. Both must be considered in the treatment of the whole problem.

The influence of home conditions is strong in determining both personal adjustment and achievement in reading.

Because multicausal factors and psychological functions underlie reading disability in high-school and college students, and because reading is a function of the whole personality and is one aspect of the growth of the individual, the ultimate goal of reading instruction must be the modification of the personal and social adjustment of the student wherever such adjustment impedes reading ability.

To be effective, reading instruction will have to accept the task of dealing with the whole phenomenal field of the individual, of planning to bring about changes in his selfperception as well as in his perception of his environment. •

A Laboratory Experiment in Chemistry

The Use of Unknowns

T. W. Jeffries

In The Science Teacher

IT is a frequent and frustrating experience for the chemistry teacher to know that students are parroting definitions of elements, mixtures, and compounds without an understanding of the differences which each exhibits. Attempting to overcome this, the author devised an unstructured laboratory experiment to point up the differences.

The student is told that in several weeks he will be given an envelope containing a substance which is a mixture, a compound, or an element. The actual experiment is not introduced, however, until the basic laboratory techniques, such as filtering, bending tubing, etc., are completed. Only general information is given on procedures and references to be followed.

The student is required to write a report explaining how he arrived at his decision regarding identification. His grade is based on the laboratory results and whether he is able to make an identification. The highest grade is given for a correct answer with logical laboratory results. The next best grade is earned by an incorrect identification but with good laboratory results. The lowest grade is given for an unsupported right identification or the wrong answer with correct evidence.

T. W. Jeffries is a science teacher at Kelso High School, Washington. Reported from The Science Teacher, *XXVIII (May 1961), 41.*

For the unknowns, materials were chosen that were homogeneous and would not give visual evidence. The varieties and combinations are inexhaustible. A list might include: commercial fertilizer, baking soda, baking powder, calcium carbonate, colored chalk, colored chalk and sulfur, clay, sugar, salt, carbon, manganese dioxide, carbon and managese dioxide, anhydrous copper sulfate, cement, albumin, ferric oxide, or ferric oxide and red phosphorus.

The students enthusiastically entered into the spirit of the investigation, and results were highly gratifying. Although only a few obtained correct answers, all the students seemed to have a better understanding of elements, mixtures, and compounds. •

ONE step in the scientific method of thinking is to draw a cancellation.—Boner reported in *The Science Review.*

The Role and Function of

The Instructional Materials Center

WILLIAM C. MILLER

In Educational Leadership

To do an effective job of teaching today, a teacher must utilize a wide variety of materials and approaches. In response to the demands being made of our schools, the concept of an instructional materials center, a unified service including both library and audio-visual materials, is receiving rapid acceptance among educators.

It is the classroom teacher who feels most the stepped-up educational demands our times have forced. Teachers have always been busy people but now with the increasing numbers of children, more emphasis on quality education, and the deluge of new knowledge and teaching materials, a comprehensive learning resources program is a necessity. The unified collection encourages more and better use of these materials.

Whether it is called "materials center," "curriculum laboratory," or "learning resources library," its purpose is to establish a richer learning environment by aiding teachers and students in dealing with the increasing amount of information available, assist in use of the wealth of instructional aids, and help to employ effectively the methods and "hardware" of the new teaching technology.

The distinguishing feature of a materials center is that all learning materials have equal status and receive consideration. The collection may contain all materials used in teaching. Books, pamphlets, periodicals; slides, filmstrips, recordings (and the equipment to use them); globes, maps, charts, and clippings; and less common but useful items such as models, specimens, and dioramas.

What a center contains and what services it offers depends on the school curriculum it serves. Since each teacher and the needs of youngsters in each school are different, what is appropriate for one school may not be right for a school of the same size in a nearby district. Some centers in elementary schools have a sewing machine

William C. Miller is Educational Consultant, Wayne County Board of Education, Detroit, Michigan. Reported from Educational Leadership, *XVIII (March 1961), 364–67.*

for making costumes for dramatizations; others have simple woodworking tools. Art supplies beyond those that are in each classroom are often a part of the center's collection.

Ideas, too, are part of the center. Bulletin-board materials and suggestions, exhibit and display ideas, scripts, field trip and community resources files, all things which will aid instruction are housed in the center.

MOST IMPORTANT ELEMENT

Probably the most important element of an effective materials center is its skilled staff. Mature, experienced, professional persons who enjoy helping teachers and students are necessary to an effective program. Given adequate clerical help and funds, such a staff can markedly influence teaching practices.

The quality of the staff is vital to the program because they must be capable of aiding the varied activities taking place in a center. Teachers inquire about, order, preview, and make the materials they need. Students ask help on research projects or for a practical project such as making a model, and they seek information about resource people, or field trips they might take. Administrators and curriculum people receive help in planning effective teachers' meetings or preparing booklets or posters for public-relations purposes.

In general, two major types of activity go on in the center: reading, listening to, and viewing of materials by teachers and students individually and in small groups; and teacher and pupil preparation of teaching aids such as charts, graphs, and slides.

In the center, the materials specialist is concerned with acquiring, organizing, housing, and distributing the whole range of learning resources to enrich the learning environment of the school.

Materials should, of course, be as close to the consumer—the pupil or the teacher—as is practically possible. Certainly as many as possible of the commonly used tools for learning should be kept in the classroom. But to have the type of education our time demands, easy access to a wide variety of instructional materials and skilled guidance in selection and use of these tools is necessary.

To pause and consider the amount and nature of resource materials our schools use today reveals the shortcomings of many schools in maintaining an artificial division of materials. For example, a chart which could make a valuable contribution cannot be shelved like a book. The audio-visual person does not feel it is his responsibility. The result is that a "no-man's land" of materials is created. Because of this artificial division of materials, the purposes of education may not be served. This cannot happen when a school is served by a unified collection under the direction of a skilled materials specialist. •

Who Profits from Special Placement?

The Value of Special Classes for the Mentally Handicapped

FRANCES A. MULLEN and WILLIAM ITKEN

In Chicago Schools Journal

SPECIAL classes for the mentally handicapped have existed in American schools since the turn of the century. They have grown and spread steadily in numbers, acceptance, and distribution. Practically all large cities have long had such classes, and current trends indicate that a rapidly increasing number of smaller communities are finding means to serve these children.

What is the value of special classes for these children? Do educable mentally handicapped children progress faster academically or achieve better adjustment in special classes than when left in regular grades? What kinds of children profit from special placement?

These and other questions have been the subject of four years of research in the Chicago Public Schools, under a federal grant totaling almost $600,000. This will be a brief summary of the findings concerning these three questions.

The "educable mentally handicapped" are, in general, the children who can eventually learn to read usefully. For the most part, they are ready to start to learn to read at age eight or nine, or perhaps not until ten. They progress slowly when they do start to read, but by the age of 18 they can achieve a usable degree of reading skill, perhaps equivalent to the achievement of normal youngsters in fourth, fifth, or even sixth grade. They also attain useful degrees of competence in other educational objectives.

Frances A. Mullen is Assistant Superintendent in charge of Special Education for the Chicago Public Schools. William Itken, of the Bureau of Child Study, directed the research project described. Reported from Chicago Schools Journal, *XLII (May 1961), 353–63.*

School psychologists are reluctant to specify limits for EMH (educable mentally handicapped), since many factors besides a test score are involved in the diagnosis. When an IQ range is specified, it refers to scores on individually administered intelligence tests. There is considerable agreement on a lower limit of 50 or 55 IQ for classes for the educable mentally handicapped, and more variation as to the upper limit at 70, 75, or 80.

The academic progress of EMH children in either special or regular classes was disappointing, as measured by standardized achievement tests. With an average IQ between 69 and 70 for all the retested children, we might hope for academic progress at the rate of .7 of a year for each school year. Instead, the median gain was less than .5 of a year in both reading and arithmetic on the Stanford Achievement Test (counting only children whose mental age was at six years or above at the beginning of the measurement period).

No consistent difference in academic progress was demonstrated between the average EMH pupil in the special and regular classes. On the Stanford tests, the average regular class pupils made slight but not significantly greater progress.

Measurements of change in adjustment and personality factors over a one- or a two-year interval showed some significant differences between pupils placed in special or in regular classes. The hostility scale on the projective test suggested that the special class was more successful in reducing the hostility level of its pupils, especially of the boys, while the productivity scale on the same instrument suggested that the regular class was more successful in increasing the pupil's breadth of ideas. The sociometric interview suggested the possibility that children in the special classes showed greater progress in developing secure, confident, and friendly relations with their classmates.

How does it happen that a group of children in the special classes, many of whose members were selected as being maladjusted in the regular grades, appears in a special class to be on the average better adjusted than those left behind?

TWO HYPOTHESES

Two hypotheses suggest themselves. First, the frame of reference of the teacher in a special class may be significantly different from that of the teacher in the regular grade. The special teacher rates the child in comparison with his expectations of children in a special group, and in comparison with similar children with whom he has been working. The special teacher may accept behavior and personality traits the regular teacher would consider evidence of maladjustment. Further, in a class of 35, the impact of certain behavior deviation is much greater than in a class of 15.

According to this "frame of reference" hypothesis, then, the adjustment of the child in a special division might actually be identical with, or even poorer than, that of a child in a regular grade, but be perceived and rated by the teacher as better.

As a second hypothesis, there may be improvement in the child's adjustment and in the image his personality would present to the most unbiased observer as a result of placement in a special class. The child may have found release from pressures of impossible academic achievement inherent in his perception of his classmates' activities, even if the regular teacher sets lowered goals for him.

The teacher with 15 pupils can more effectively establish rapport and convince the deviate child that his good qualities are honestly admired than can the teacher with a larger class. A special class teacher has special training in understanding this child and has sought this type teaching assignment because of an interest in its problems and challenges.

This second hypothesis—that the child who presents adjustment problems in the regular grades shows a different and better pattern of behavior in the special class, not because he is a child who possesses fundamentally stronger adjustive capacities, but because the special class is better adapted to his needs—has drawn strong support from several lines of evidence.

A comprehensive study of the value of special classes should include inquiry into the effect on nonhandicapped pupils of the greater homogeneity of grouping which results when the retarded child is removed and the teacher's energy can be concentrated on the nonhandicapped. Does the presence of a mentally handicapped child interfere with the learning of his nonhandicapped peers? This is a question that must be the subject of further research.

IMPLICATIONS

Several important implications for the diagnosis of mental retardation did arise from the research. Individual psychological evaluations still underestimate the potentials of a substantial number of children with cultural handicaps, even when carried out by trained and experienced school psychologists alert to the factors producing "pseudo-mental-deficiency."

Psychologists must be particularly careful in evaluating the potentials of children who have attended schools in the rural South, children with foreign-language backgrounds, and children whose environment may have failed to stimulate them to optimal intellectual development. Many such children made progress during the two years of observation at rates considerably above the expectancy for their measured IQ.

When a school refers a child for psychological examination with a view to determining his eligibility for placement in a special class, detailed information on the child's personality, adjustment, and background is as essential as data on his educational progress.

Periodical reevaluation of all children designated EMH is mandatory. It is especially important in the cases where there is evidence of cultural deprivation in the background.

There are also implications regarding retention of EMH children in regular classes. Well-adjusted EMH children, and particularly those well-adjusted EMH children who have recently come to the city from a rural South environment or who have foreign-language environments, may well be retained in regular grades even with measured IQ's considerably below 75.

Special class placement has been demonstrated to be superior to regular class placement for the more severely handicapped, those with emotional or speech or other handicaps added to the basic mental handicap, and those from homes marked by overcrowding, family instability, and contact with protective social agencies.

With more careful diagnosis and selection of children who will profit from special class placement, more children formerly labeled as EMH can be retained in regular grades, making room in the special classes for the children with severe problems who need special placement.

The program in the special classes needs searching study and improvement. Gains must be made in curriculum, methods, supervision, and teacher training. Continuous work in these areas is essential.

IMPROVING ORGANIZATION

The extreme variations found among educable mentally handicapped children have important implications for the organization of instruction for such children. It would appear worthwhile to experiment with special facilities for the persistently nonachieving educable mentally handicapped child whose multiple handicaps have been mentioned.

Another experiment might organize rapid-track facilities for the pseudo-retarded child whose mental ability may have been underestimated by psychological examination. These are the high-achieving EMH children whose measured IQ's are questioned and who are well motivated and well adjusted. Many of these probably could be returned to regular grades.

The real question is not whether special classes are good or bad, but what kind of special services are needed by what kinds of youngsters in what kinds of school programs.

Findings of this study have already been partially translated into action in the Chicago program. Further, like all good research, it has opened up more new questions than it has solved. Continued study of these results and of related problems will undoubtedly result in additional changes for the benefit of all youngsters and in improved efficiency of the school. •

Everyone's Handicapped

MODERN psychology tells us that it's bad to be an orphan, terrible to be an only child, damaging to be the youngest, crushing to be in the middle, and taxing to be the oldest. There seems no way out, except to be born an adult.—From *Woodmen of the World Magazine.*

Linguistics and I

Carrie Stegall

In Elementary English

JUST as I had finally developed a "surefire" method of teaching the eight parts of speech to my elementary children, I looked around for other worlds to conquer and enrolled in a graduate program to study toward a second major in English.

Innocent of the thinking that invaded some college textbooks since my last bout with them, the first time the word *linguist* appeared on on the page of Margaret Bryant's *The Heritage of the English Language,* I dismissed it as insignificant. I knew before I could spell it that a *linguist* was one proficient in languages.

But I was to encounter the word many times in the pages I was asked to read. I heard it coming from the tongue of my young professor, and even from the mouths of babes, my brilliant undergraduate classmates. I casually wondered about their attachment to the word—nothing more.

Then I began wading through a ponderous book about grammar, one ostensibly written by a heretic. I was the epitome of tolerance. I pitied Charles Carpenter Fries. The poor soul hadn't had my high-school English and Latin teacher to set him on the right track. Perhaps he hadn't had the advantage of having been reared on the fundamental belief that Grammar was the 67th book of the Bible.

When I had finished those 18 months of cramming for credit and began to digest the storehouse of facts, the wisdom and counsel of my professor began to seep through my mental block. I recalled how, after my frequent outbursts about the stupidity of the modern approach, she had never argued; she had never forced her opinion; she had never ridiculed. She always said quietly, "Carrie, just be able to defend your statements."

In the months that followed, the term "structural linguistics" seemed to have a hypnotic effect on me. I wandered over the faces of books, struggled through workshops, conversed with scholars, and have finally come up with my own definition:

Structural linguistics is the study

Carrie Stegall teaches in the Holliday Public Schools, Texas. Reported from Elementary English, *XXXVIII (April 1961), 229-32, 263.*

of the natural and informal structure of oral language as used by educated people. (Please, for my elementary children I do not *want* a more exact and complicated definition, even if the linguists do protest.)

With this awakening, I was hurled back in memory to my desk in high-school English class where I had had the hardest time remembering to say, "I shall go to town Friday," instead of the "substandard" usage, "I am going to town Friday."

Though I could write acceptably, I could not speak "correctly," and I found no consolation in other people's "degrading" speech. My brand of misery didn't want company. I *knew* my English grammar. Yet, I felt that inability to use it correctly in fluent speech was a personal tragedy.

Thirty-plus years later, it's no wonder I'm not a speaker. I'm still scared to death of formal usage in oral form. But I do appreciate company, and I shall never forget the wonder and awe I experienced when I first heard a past president of the National Council of Teachers of English use a plural pronoun with a singular antecedent!

VISION EXTENDED

But what does structural linguistics have to do with all this? Just this: Having been stripped of my grammatical armor, I find that my vision has been extended. Looking, I have found tentative success—only tentative, remember.

This new "wonder drug" seems to be the exact opposite of the semi-cure to which I was submitted. Instead of beginning with the book of pseudo grammar and proceeding to writing and then to speech, this structural linguistics cure begins at the base of the disease, speech, proceeds to writing and then—if need be—to grammar. If the average patient doesn't want to continue with the whole cure, to formal speech and writing, he can, nevertheless, acquire a measure of success in acceptable informal usage, sufficient to insure him freedom from speech fear in his life, liberty, and pursuit of happiness.

Now, my fourth and eighth graders are being guided to observe and imitate the natural and informal structure of the English language as used by teachers and other educated people of their acquaintance. They also note the easy flow of language in their short stories and library books. You see, it is informal structure in written form. Simple and elementary sentence patterns that do no violence to the prevailing terminology of traditional grammar (except perhaps to ignore much of it) are being slowly and cautiously developed in the classrooms with the children's help and suggestions.

We don't turn to the rule books for the answers to our questions and problems. We listen, always mindful of *who* is speaking and *why* before we accept his speech as a model.

We read, with the same guards up that we use when listening—after all, reading is just speaking captured on paper with some necessary signals thrown in as a substitute for the voice.

Then carefully, but freely, we speak and write, trying to emulate worthy models. When in doubt about a model, I turn to Robert Pooley, or some similar expert, just as I seek help from experts in other areas when my children pop questions that are foreign to me.

No, my teaching isn't what it used to be. My classroom is more like a three-ring circus now than like the straight-jacket ward of a mental institution.

It's true that I haven't found many of the answers, and I am forced to keep searching. I am not comfortable and secure and satisfied in my teaching any more. Mistakes are old familiar friends that I expect to meet often, but I prefer to advance by stepping on mistakes to standing still ignominiously.

We are strange companions, but delighted and excited ones—linguistics and I! •

The Right Words

• James Thurber in his new book *Lanterns and Lances* (Harper, 1961) writes of his "bad year among the meaning-manglers." The trouble started when Thurber heard a woman wind up a recital of a legal involvement with, "So they finally decided to leave it where sleeping dogs lie." Thurber responded, "One can only hope the barristers for the other side will tumble for it hook, line, and barrel."

He found more "troubled idioms."—"We are not going to hide our heads in the sand like kangaroos," said one lady. Of history professors, another said, "It is not easy to make them colleagues. They are always looking down each other's noses."

Mr. Thurber summed up with a troubled idiom of his own: "We writers are a brave lot. We stand at Armageddon and we battle for the word while the very Oedipus of reason crumbles beneath us."—From *Words at Work*, a Scott, Foresman and Company bulletin.

• The little girl was repeating the alphabet in a prayer-like tone. Asked what she was doing, the girl explained, "I'm praying, but I can't think of exactly the right words, so I'm just saying all the letters. God will put them together for me, because He knows what I am thinking."—From *Journal of The American Medical Association*.

★ With Education in Washington ★

THE EDUCATION DIGEST WASHINGTON BUREAU

Downturn.—A few days before schools re-opened, HEW Secretary Abraham A. Ribicoff called one of his infrequent press conferences to release the latest biennial survey of state schools systems by the U.S. Office of Education.

The classroom shortage was not smaller. At the beginning of the 1960-61 school year, the shortage was 142,000. At the start of the 1957-58 school year, state educational agencies estimated the shortage at 143,000.

Rising enrolments and higher prices carried the cost of operating the nation's public elementary and secondary schools to a record $15.6 billion in the past school year, an increase of $2 billion over 1957-58. The survey showed increased educational investment in every category but one—capital outlay by local school districts for land, buildings, and equipment.

Though total expenditures increased by $2 billion in the two-year period, school construction and equipment expenditures were down 7 percent in 1959-60 compared with two years earlier. This was the first decline in capital outlay for elementary and secondary schools since World War II.

"States and cities have about reached the upper limits of their financial capacities," Secretary Ribicoff warned. "There might be some holdback here and there in the hope of federal aid, but I don't think that is an important factor. The fact is, the schools do need help."

Turndown.—But there was no help from Washington as the Republican-Southern Democratic coalition in the House of Representatives turned down President Kennedy's compromise school-aid bill by an unexpected 242-169 vote. The defeat was stunning and alibis abounded. These may be summarized as follows:

1. The Administration did not fight as hard for education as it did, for example, for foreign aid. Backstage huddles with key political figures were a poor substitute for efforts to evoke massive public support to sway wavering Congressmen. The drive for passage should not have been left until the weary end of the Congressional session.

2. The bill had few friends left after it had been compromised into its final form. "We consider it discrimination," a Catholic spokesman said when private school loans were removed. Most Northern Democrats, including those from largely Catholic districts, voted for the bill, nevertheless.

3. Defectors were mainly liberal Southern Democrats who usually provide the needed margin of support for the Administration's legislation. In this case, though, the bill's lack of support for teachers'

salaries gave them an excuse to cast one vote to please home-town conservatives.

By supporting aid to "federally impacted" areas for another two years, the Administration strongly hinted that the fight for federal aid was over in the 87th Congress. The outlook will be no better in the 88th Congress that will take its oath in January 1963 unless the Administration increases its strength in the House of Representatives at the polls next year. Only once in the Twentieth Century, however, has the party in the White House managed to increase its strength in the House without the President on the ballot.

Day in Court.—Organized education has taken the Federal Communications Commission to court to protest its recent rulings which "favor commercial interests at the expense of noncommercial educational television." Suit was filed by the Joint Council on Educational Broadcasting, composed of eight organizations including the NEA, American Council on Education, American Association of School Administrators, and the chief state school officers.

To understand this unprecedented action, a brief glossary of terms may be helpful. VHF designates the channels in general use, channels 2-13. UHF channels 14-83, on the other hand, though more plentiful, can be received by fewer than 4 million of the 45 million homes with TV sets. Fixing a VHF receiver to pick up UHF programs costs from $25 to $75.

The FCC has reserved 267 channels for ETV but 179 of these are UHF channels. Of the VHF channels reserved for noncommercial use, too many are in such places as Silver City, N.M. (pop. 7022) and Sneedville, Tenn. (pop. 457). Less than 50 ETV stations are on VHF channels, compared with nearly 500 commercial stations. There is no ETV station from Boston to Pittsburgh, nor any in Cleveland, Los Angeles, and many another metropolitan area.

Educators contend that when a third UHF channel becomes available in a community with two commercial UHF stations, the new channel should be given to ETV if school groups are ready to use it. A recent FCC policy statement seemed to agree. Then came the decisions on Rochester, N.Y., and Johnstown, Pa., both of which have two VHF commercial stations. In both towns, educators who applied for the third VHF channel were frozen out by the FCC in favor of profit-seeking applicants.

"For the FCC to say that access to VHF is not critical to establishment of an adequate national educational television service is to ignore the facts and deliberately confine educational television service to the specialized receivers of a formal classroom," the National Association of Educational Broadcasters said in supporting the legal action. "Educational services should at least be equal to commercial services, and the station score in the great communities across the country should be two to one, or three to one, instead of three and four to nothing!"

White House Concerts.—To the 85-piece Transylvania Symphony Orchestra from the Brevard Music Center summer camp in North Carolina went the honor of playing the first of a series of "Concerts for Young People by Young People" held at the White House under the sponsorship of the First Lady. A Presidential assistant who played oboe at the camp 25 years ago got his alma mater the invitation.

Since Mrs. Kennedy was in Hyannis Port, Mass., the President welcomed the student musicians and 325 handicapped children from nearby schools who were invited to attend. "As an American, I have the greatest possible pride in the work that is being done in dozens of schools stretching across the United States—schools where devoted teachers are studying with interested young men and women and opening up the whole wide horizon of serious music," President Kennedy said. Returning to his desk, he opened his office doors to listen to the concert on the White House lawn as he worked inside.

To Prevent Drop-Outs.—A plea for a nationwide effort to encourage young people to complete their schooling was made by Sterling M. McMurrin, U.S. Commissioner of Education, in a statement released just as school opened for the fall semester.

Commissioner McMurrin pointed out that 2½ million of the 10,800,000 students to be enrolled in grades 9 through 12 of the nation's public and nonpublic schools this fall will drop out before graduation. He declared that recent surveys indicate that these school leavers normally have average intelligence and that significant numbers have ability levels suited to the demands of college.

He declared that it is time to take a good look not alone at our schools but at our whole public attitude, to face up to the economic and social factors which crush human initiative and creativity.

"The majority of drop-outs," he stated, "come from backgrounds of semiliteracy and poverty, sometimes crime, often neglect. Although the early grades offer the underprivileged child some measure of security, by the time he reaches high school the sociological pressures from outside are dominant. Three out of five drop-outs have not even had the benefits of guidance and counseling to help them adjust sights to potentials. Even among the sizeable number of drop-outs from more privileged families there is a background of parental indifference to the worth of education.

"All too often we undermine our country's greatest resource, its brainpower, through indifference, complacency, and improvidence."•

• Educational News •

CHANGES IN SUPERINTENDENCIES:

Buffalo, N.Y.: The **Very Reverend Leo F. Hammerl**, formerly associate superintendent, Catholic Diocese of Buffalo, has succeeded the **Right Reverend Sylvester J. Hobel**, now diocesan secretary of education.

Freeport, N.Y.: **John Henry Martin**, formerly of Wayne, N.J., is now superintendent.

Morristown, N.J.: **Harry W. Wenner**, formerly of Mountain Lakes, N.J., has succeeded **Frank P. Bogle**, resigned.

Manitowoc, Wis.: **Charles E. Jones**, formerly of Beloit, Wis., is now superintendent.

Anchorage, Alaska: **Hillis K. Idleman**, superintendent for three years, has resigned.

Ardmore, Okla.: **James W. Bruce**, formerly assistant superintendent, has succeeded **George D. Hann**, now regional representative of the U.S. Office of Education.

Mamaroneck, N.Y.: **T. James Ahern**, superintendent for 20 years, has retired.

Menominee, Mich.: **Alex M. Nelson**, formerly head of Richmond Community Schools, Mich., is now superintendent.

COLLEGE PRESIDENTS:

University of Houston, Tex.: **Philip G. Hoffman** has succeeded **A. D. Bruce**, retired.

Barnard College, Columbia University, New York: **Millicent Carey McIntosh**, president since 1952, has announced her retirement in June 1962.

Gettysburg College, Pa.: **Carl Hansen**, formerly dean of the faculty, Cornell University, is successor to **Willard S. Paul**, retired.

Dickinson College, Carlisle, Pa.: **Howard L. Rubendall** is now president.

TEACHER-TRAINING INSTITUTIONS:

University of Hawaii, Honolulu: **Ray Johnson**, formerly superintendent, Riverside County, Calif., is now associate professor of school administration.

University of Bridgeport, Conn.: **R. Daniel Chubbuck**, superintendent at Darien, Conn., has been named Dana Professor of Education, effective Jan. 1, 1962.

Fairmont State College, W.Va.: **A. Neil Frye**, formerly superintendent, Grant County, Petersburg, W. Va., is now assistant professor of education.

Howard College, Birmingham, Ala.: **Ira Fred Simmons**, formerly superintendent, Jefferson County, Birmingham, is now professor of education.

University of Chicago, Ill.: Among the new members of the graduate school of education faculty are: **Bertram B. Masia, H. Alan Robinson, Charles E. Bidwell, P. J. Foster**, and **Andreas Michael Kazamias.**

OTHER CHANGES AND APPOINTMENTS:

Angus B. Rothwell, formerly superintendent at Manitowoc, Wis., has been named Wisconsin state superintendent of public instruction.

Ralph C. M. Flynt has been named assistant commissioner for statistics and research services, U.S. Office of Education, succeeding **Roy M. Hall**, now at the University of Texas. Mr. Flynt was formerly assistant commissioner for legislative and program development.

American Education Week

"YOUR Schools: Time for a Progress Report" will be the theme of the 1961 American Education Week, to be held November 5-11. Promotional material for the week is available from the National Education Association, 1201 Sixteenth St., N.W., Washington 6, D.C.

In addition to the main theme, the following daily American Education Week topics have been selected for this year: Sunday, "Time to Test Our Convictions"; Monday, "Time to Decide on Essentials"; Tuesday, "Time to Work Together"; Wednesday, "Time to Explore New Ideas"; Thursday, "Time to Salute Good Teachers"; Friday, "Time to Pay the Price for Excellence"; and Saturday, "Time to Look Outside Our Borders."

The observance of the week is sponsored by the NEA, American Legion, National Congress of Parents and Teachers, and the U.S. Office of Education.

Survey on Trends

GREATER emphasis in the schools on reading, and how to teach it, and an increased interest in study skills, and how to develop them, were noted in a survey of innovations planned in schools, recently completed by the National Education Association.

The survey also indicated that teaching machines are still regarded as curiosities, rather than instruments for general classroom use, but television is becoming a substantial force as a means of instruction.

A new course which showed up in many responses is one on note-taking and how to study, intended for the college bound. Many of the school districts also reported newly-revised courses in science and mathematics, and many indicated interest in team teaching.

"Flying Classroom" Starts

THE nation's first "flying classroom" began sending lessons the second week in September to schools in six states of the Midwest.

The Midwest Program on Airborne Television Instruction (MPATI) will beam 17 courses to students from first grade to college from a plane circling 23,000 feet above Montpelier, Ind. Equipment consists of two four-engine planes loaded with 6½ tons of television equipment.

Sample lessons for the experimental project were transmitted last spring before school closed. MPATI is a $10 million experiment sponsored by foundations and private industry. Its telecasts cover most of Indiana and parts of Illinois, Kentucky, Ohio, Michigan, and Wisconsin.

New Code Changes

A CHANGE in the Building Exits Code of the National Fire Protection Association permits, for the first time, a two-story (no basement) school building to have open stairways, provided the building is completely sprinklered.

The new code, which was adopted by the Association at its 1961 meeting in Detroit, also permits stairway doors in schools to be open if they are closed by a device which is "fail-safe" and connected to a complete sprinkler or fire alarm system.

The Building Exits Code is purely advisory as far as the National Fire Protection Association is concerned, but it is widely used as a basis of law and legal regulation in the interest of public safety. Francis R. Schere of the National Council on Schoolhouse Construction was chairman of the committee which developed the 1961 edition of the code.

Colleges Cooperate

Cooperation, or "togetherness" as the social scientists might call it, seems to be the trend today, especially among colleges. Among the examples:

A group of 12 liberal-arts colleges in Michigan, Indiana, Wisconsin, Ohio, and Minnesota has recently formed the Midwest College Council to help well-qualified eastern secondary-school students and their parents become more familiar with college opportunities in the Midwest. Some of the same colleges are also members of the Great Lakes College Association, a cooperative group working together to strengthen their educational programs.

In the East, the College Center of Finger Lakes has been organized by four colleges in New York and one in Pennsylvania. Plans include a curriculum study to eliminate duplication of costly, low-attendance courses by unifying them in one college, a central library for expensive and rarely-used books, group buying of supplies, centralized equipment, and an exchange program for faculty, students, and guest speakers.

In Texas, a demonstration program in the sharing of college and university faculty resources has been started by 11 colleges and universities.

Called the Texas Educational Microwave Project (TEMP), the experiment is designed to transmit in a closed-circuit microwave network eight courses to the 11 cooperating institutions. The courses to be televised were selected by a committee of administrators representing all the schools. The experiment is being operated under a U.S. Office of Education contract (NDEA funds) with additional assistance from the Ford Foundation and the participating institutions.

TV Courses

For the fourth year, "Continental Classroom" will be presented on the TV network of the National Broadcasting Company this fall.

The early morning program (6:30 to 7 A.M.) this year is a new course in American Government, with Peter H. Odegard, professor of political science, University of California, Berkeley, as teacher.

In addition to the new course, the past season's "Continental Classroom" course in Contemporary Mathematics is being repeated in the half-hour preceding the American Government course. Both courses started Sept. 25.

On the Columbia Broadcasting System television network, a new "College of the Air" course is offered this fall by the Learning Resources Institute. The new offering is "The New Biology" with Ray Koppelman, assistant professor of Biochemistry, University of Chicago, as teacher. It also started during the week of Sept. 25.

International Seminar

REPRESENTATIVES from more than 30 countries are expected to attend the International Seminar on Instructional Television, to be held Oct. 8-18 at Purdue University, Lafayette, Ind.

The uses of instructional television in England, France, Japan, Canada, Italy, and the United States will be presented during the seminar. Sponsoring organizations for the meeting include the U.S. Office of Education, United States National Commission for Unesco, United Nations Educational, Scientific, and Cultural Organization, International Cooperation Administration, the National Academy of Sciences, and Radio Corporation of America.

ACE Meeting

ABRAHAM A. RIBICOFF, Secretary of Health, Education, and Welfare, and Edward R. Murrow, director of the United States Information Agency, will give the keynote addresses at the forty-fourth annual meeting of the American Council on Education, to be held Oct. 5-6 in Washington, D.C.

The Council meeting, which will be attended by representatives from 1,222 institutions and organizations, will consider the topic "The Future Pattern of Higher Education and the Council's Role."

Logan Wilson, former chancellor of the University of Texas, is now Council president, succeeding Arthur S. Adams, who retired in July.

DATES OF THE MONTH:

Oct. 3-6, National Council on Schoolhouse Construction, Atlanta, Ga.

Oct. 5-6, American Council on Education, Washington, D.C.

Oct. 8-12, Association of School Business Officials of the United States and Canada, Toronto, Ont.

Oct. 8-18, International Seminar on Instructional Television, Lafayette, Ind.

Oct. 16-20, National Safety Council, Chicago, Ill.

DATES OF THE COMING MONTHS:

Nov. 5-8, Adult Education Association of the U.S.A., Denver, Colo.

Nov. 5-11, American Education Week.

Nov. 12-23, National Retarded Children's Week.

Nov. 22-25, National Council for the Social Studies, Chicago, Ill.

Nov. 23-25, National Council of Teachers of English, Philadelphia, Pa.

Nov. 24-25, National Council for Geographic Education, Philadelphia, Pa.

Dec. 3-8, American Vocational Association, Kansas City, Mo.

Dec. 27-29, Modern Language Association of America, Cincinnati, Ohio.

Dec. 27-29, National Business Teachers Association, St. Louis, Mo.

Feb. 14-17, American Association of Colleges for Teacher Education, Chicago, Ill.

Feb. 17-21, American Association of School Administrators, Atlantic City, N.J.

Feb. 24-28, National Association of Secondary-School Principals, St. Louis, Mo.

Mar. 4-8, Association for Supervision and Curriculum Development, Las Vegas, Nev. •

New Educational Materials

The Schools. Martin Mayer. New York: Harper & Brothers, 1961. Pp. xvii + 446. $4.95.

At long last an extraordinarily able reporter has done an over-all job of telling what the schools are all about in a presentation that is fascinating, accurate, and disconcerting. This exposition of American education (and European, too, as it relates to our schools) includes provocative observations on the psychology of learning, the IQ, and tests and measurements with some asides on sales techniques of the big test makers.

There is much more in this temperate and factual reporting of the educational system by the author, who candidly admits that many of his preconceptions about the schools were changed after he had steeped himself in educational literature and visited schools. If Admiral Rickover or even Dr. Conant had done the homework and the legwork that Mr. Mayer did, they would have come up with a more rational understanding of American education.

Without a doubt, this book is the best and most interesting reporting about the schools that has been done in this century. It should be read by all school people and, hopefully, by laymen as well.

The Transformation of the School. Lawrence A. Cremin. New York: Alfred A. Knopf, 1961. Pp. xi + 387. $5.50.

"The death of the Progressive Education Association in 1955 and the passing of its journal, *Progressive Education*, two years later marked the end of an era in American pedagogy. Yet one would hardly have known it from the pitifully small group of mourners at both funerals."

This book is a history of the progressive movement in American education. It locates the origins in the general protest and reform movements of the post-Civil War period, relating progressivism in education to progressivism in politics and social thought. It follows the progressive education movement through its heyday in the twenties and thirties to its collapse following World War II.

Mr. Cremin ties history of education in with general history, avoiding the isolation of education history from the social and intellectual forces of the era. He deals critically with Horace Mann, William James, Edward L. Thorndike, John Dewey, William H. Kilpatrick, and other "progressive" educators who were significant in education, and our developing culture.

Cremin demonstrates that education is a subject of cultural significance, one that cannot be ignored by students of social policy or by thoughtful citizens.

Education for College: Improving the High School Curriculum. Albert R. Kitzhaber, Robert M. Gorrell, and Paul Roberts. New York: The Ronald Press Co., 1961. Pp. v + 195. $3.50.

This book is a commentary on the reports from the Portland, Oregon, High School Curriculum Study. That study, completed in 1959, provided a view of the secondary-school curriculum from the viewpoint of nearly 50 college subject-matter specialists. Thirteen volumes resulted from the study and this book interprets the findings.

The study of the Portland school system was a result of the mutual interest college professors and high-school administrators and teachers have in the high-school curriculum. It was the task of the specialists to consider the adequacy of the curriculum for college-bound students and to suggest ways of improving the teaching of college-preparatory subjects.

The findings and recommendations are presented here subject-by-subject, including some dissenting opinions, and with some commentary on innovations in the area of mechanical instructional devices.

Issues, Problems, and Approaches in the Teaching of English. Edited by George Winchester Stone, Jr. New York: Henry Holt and Co., Inc., 1961. Pp. x + 246. $2.50.

"English, the humanistic course required of all students in our schools from the grades to the college, has, as a subject and a discipline, long been drifting toward chaos in our schools."

The above is the opening statement in the introduction to this book edited by the executive secretary of The Modern Language Association of America.

Prepared to aid teachers of English, the book presents a series of writings exploring and commenting on what is taking place in the teaching of English in our schools. The final section of the book presents a program for action, which "it is hoped will involve the imaginative and total response from the members of the profession, in all the segments of English teaching in our schools and colleges."

Education for the Emerging Age: Newer Ends and Stronger Means. Theodore Brameld. New York: Harper & Brothers, 1961. Pp. 244. $5.00.

This is a statement of the ideals and methods of education based on the theme that "education can and should dedicate itself to the task of reconstructing a culture which, left unreconstructed, will almost certainly collapse of its own frustrations."

With this book, Professor Brameld continues his analysis of educational theory and practice begun 10 years ago in his book, *Ends and Means in Education.*

Brameld identifies cultural trends and tensions of the last decade (Soviet space achievements, lingering effects of the McCarthy influence, awakening of the American Negro), and, against this backdrop, appraises conflicting theories of education, and offers proposals for reorganizing the curriculum, the professional preparation of teachers, and the control of education.

Contemporary educational spokesmen including Conant, Hutchins, Rickover, Bestor, and others are examined in detail and measured in relation to the contemporary cultural scene.

OTHER MATERIALS RECEIVED:

ELEMENTARY

Reading Games; Strengthening Reading Skills with Instructional Games. Guy Wagner and Max Hosier. Darien, Conn.: Educational Publishing Corporation, 1961. Pp. 128. $1.95.

Imagineering; Songs and Rhythms for Use in Elementary Schools. Arthur Lee and Geneva Ruth Mancebo. New York: Vantage Press, 1961. Pp. 54. $3.00.

Steller of the North. Ann and Myron Sutton. Chicago: Rand McNally & Company, 1961. Pp. 231. A true story of Captain Vitus Bering's last voyage of discovery through the Pacific Ocean in search of America and of Alaska's first pioneer naturalist, Georg Wilhelm Steller.

Let's Imagine Being Places. Janet Wolff and Bernard Owett. New York: E. P. Dutton and Company, Inc., 1961. Pp. 30. $2.75.

About the Biggest Salmon. Will Hayes. **About Ready-to-Wear Clothes.** Terry Shannon. **About Silkworms and Silk.** Sophie Wormser. **Atoms for**

Junior. Les Landin. Chicago: Melmont Publishers, Inc., 1961. Pp. 32 each. $1.88 each.

Language for Daily Use. Grade 2. Mildred A. Dawson and Bonnie Scales. Tarrytown-on-Hudson, N.Y.: World Book Company, 1961. Pp. 136. $2.00.

The How and Why Wonder Book of the Civil War. Earl Schenck Miers. **The How and Why Wonder Book of the Human Body.** Martin Keen. New York: Wonder Books, Inc., 1961. Pp. 48 each. $.50 each, paperbound.

Substitute Teacher of Early Childhood, Kg-Grade 2 and **Substitute Teacher of Common Branches, Grades 1-6.** New York: Arco Publishing Company, Inc., 1961. $5.00 each. Teacher's license training texts.

Barron's How to Prepare for High School Entrance Examinations. Max Peters, *et al.* Great Neck, N.Y.: Barron's Educational Series, Inc., 1961. Pp. 502. $4.95, cloth; $2.98, paper.

A Pocketful of Seasons. Doris Van Liew Foster. New York: Lothrop, Lee and Shepard Co., Inc., 1961. Pp. 32. $2.75.

SECONDARY

Reading Instruction in the Secondary Schools. Henry A. Bamman, Ursula Hogan, and Charles E. Greene. New York: Longmans, Green and Co., 1961. Pp. vi + 266. $4.25.

Experiments and Exercises in Physics. John W. Renner and Harry B. Packard. Chicago: J. B. Lippincott Company, 1961. Pp. 176. $2.00.

Homemaking Education in the High School. (Fourth Edition.) Maude Williamson and Mary Stewart Lyle. New York: Appleton-Century-Crofts, Inc., 1961. Pp. xiv + 351. $5.00.

American Government; Democracy at Work. Robert White. Princeton, N.J.: D. Van Nostrand Company, Inc., 1961. Pp. x + 707. $5.60.

The Last Frontier: A Short History of Alaska. Ben Adams. New York: Hill and Wang, Inc., 1961. Pp. x + 181. Illustrations by the Eskimo artist George Ahgupuk.

Interpreting and Teaching American History. William H. Cartwright and Richard L. Watson, Jr. Washington, D.C.: National Council for the Social Studies, NEA, 1961. Pp. xvi + 430. $5.00, cloth; $4.00, paperbound. The 31st yearbook of the National Council for the Social Studies.

Modern Junior High School Science; A Recommended Sequence of Courses. Abraham S. Fischler. New York: Bureau of Publications, Teachers College, Columbia University, 1961. Pp. x + 127. $2.00. A Science Manpower Project Monograph.

The Junior High School We Need. Jean D. Grambs, *et al.* Washington, D.C.: Association for Supervision and Curriculum Development, 1961. Pp. vi + 37. $1.00.

The History of Our World. (Revised Edition.) Arthur E. R. Boak, Preston W. Slosson, Howard R. Anderson and Hall Bartlett. Boston: Houghton Mifflin Company, 1961. Pp. xvi + 794. $5.80.

Vanguard. Robert C. Pooley, *et al.* Chicago: Scott, Foresman and Company, 1961. Pp. 608. $4.36. Ninth-grade anthology and handbook of reading skills.

You and Your Food. Ruth Bennett White. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1961. Pp. xii + 466. $5.32.

COLLEGE

Criteria for the Establishment of Two-Year Colleges. D. G. Morrison and S. V. Martorana. U.S. Office of Education Bulletin No. 2, 1961. Pp. viii + 101. Available from U.S. Government Printing Office, Washington 25, D.C. $.45.

Building a Philosophy of Education. (Second Edition.) Harry S. Broudy. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1961. Pp. xv + 410. $8.00. A college text on the subject.

Forms and Forces in University Adult Education. James T. Carey. Chicago: Center for the Study of Liberal Education for Adults, 1961. Pp. vii + 229. $3.00.

Simplified Calculus. F. L. Westwater. New York: The Macmillan Company, 1961. Pp. xv + 160. $3.50.

A Modern Russian Reader for Technical College Students. Edited by N. S. Fudel. New York: Pergamon Press Ltd., 1961. Pp. ix + 134. $5.50.

Graduate Study in Public Administration; A Guide to Graduate Programs. Ward Stewart. U.S. Office of Education Circular 631. Pp. xi + 158. Available from U.S. Government Printing Office, Washington 25, D.C. $1.25.

The Campus and the People. M. M. Chambers. Danville, Ill.: Interstate Printers and Publishers, 1961. Pp. 75. $1.80. Organization, support, and control of higher education.

People, Programs, and Persuasion: Some Remarks about Promoting University Adult Education. Milton R. Stern. Chicago: Center for the Study of Liberal Education for Adults, 1961. Pp. vii + 101. $1.50.

The Quantity and Quality of College Teachers. Earl J. McGrath. New York: Bureau of Publications, Teachers College,, Columbia University, 1961. Pp. 24. $1.00.

GUIDANCE

Using a Timetable in Educational Guidance. Glyn Morris. Washington, D.C.: Department of Rural Education, NEA, 1961. Pp. 64. $1.00.

You and Your Career; 121 Careers Analyzed. H. Alan Robinson. New York: Collier's Encyclopedia Education Division, 1961. Pp. 28. $.50.

Job Futures for Girls in Biology. U.S. Department of Labor, Women's Bureau, Leaflet 35, 1961. Pp. 6. Available from U.S. Government Printing Office, Washington 25, D.C. $.05.

GENERAL

Helping Children Reach Their Potential. Gladys Gardner Jenkins. Chicago: Scott, Foresman and Company, 1961. Pp. 200. $2.25. A teacher's resource book.

Decade of Experiment. Pp. 110. A 10-year report of the Fund for the Advancement of Education, available free from the Fund headquarters, 477 Madison Ave., New York 22, N.Y.

Educating Gifted Children. (Revised Edition.) Robert F. DeHaan and Robert J. Havighurst. Chicago: The University of Chicago Press, 1961. Pp. x + 362. $5.00.

Research Design and Analysis. Edited by Raymond O. Collier, Jr., and Stanley M. Elam. Bloomington, Ind.: Phi Delta Kappa, 1961. Pp. vii + 208. $3.50. A report on the second annual Phi Delta Kappa symposium on educational research.

Democracy and Education; An Introduction to the Philosophy of Education. John Dewey. New York: The Macmillan Company, 1961. Pp. vi + 378. $2.45. A Macmillan paperback edition.

Complex Organizations; A Sociological Reader. Amitai Etzioni. New York: Holt, Rinehart and Winston, Inc., 1961. Pp. xiv + 497. $6.75.

Education for Living. Jacob Samuel List. New York: Philosophical Library, 1961. Pp. 112. $3.50.

Craft and Contemporary Culture. Seonaid Mairi Robertson. New York: Columbia University Press, 1961. Pp. 160. $3.50. A Unesco publication.

School Volunteers. T. Margaret Jamer. New York: Public Education Association, 1961. Pp. xvi + 200. $3.95. Includes the history of the first School Volunteer Program.

Private Schools. (42nd Edition.) Boston: Porter Sargent Publisher, 1961. Pp. 1280. $10.00.

Pupil and Teacher Security. Harry A. Ballf. Walnut Creek, Calif.: Ballf Publications, 1961. Pp. xi + 87. Includes treatises on "Liability for Pupil Injury" and "The Teacher in California."

Manual of Educational Statistics. New York: Columbia University Press, 1961. Pp. 241. $3.00. A Unesco publication.

Handwriting and Related Factors,

1890-1960. Virgil E. Herrick. Washington, D.C.: Handwriting Foundation, 1961. xii + 134. $1.25. A bibliography.

Rural Renaissance; Revitalizing Small High Schools. Edmund A. Ford. U.S. Office of Education Bulletin 11, 1961. Pp. v + 54. Available from U.S. Government Printing Office, Washington 25, D.C. $.25.

Teaching Left-Handed Children. Margaret M. Clark. New York: Philosophical Library, Inc., 1961. Pp. 44. $2.75.

AUDIO-VISUALS

Educators Guide to Free Films (21st Edition) and **Educators Guide to Free Filmstrips** (13th Edition). Randolph, Wis.: Educators Progress Service, 1961. Pp. xi + 636 and viii + 165. $9.00 and $6.00, respectively.

A Stillness at Appomattox. Bruce Catton. **The Great Gatsby.** F. Scott Fitzgerald. Two new Libraphone "Talking Books." Can be purchased or rented from Libraphone, Inc., Long Branch, N.J.

Parents Ask about Schools. A series of 12 films from the 1961 NEA television series, now available on black and white or color film. Available from Division of Radio and Press Relations, NEA, 1201 Sixteenth St., N.W., Washington 6, D.C. Each film, $35 b&w; $135, color.

Building Balanced Children. W. Cleon Skousen. An address on an LP record on the rearing and education of a child. Available from Key Records, 7720 Sunset Blvd., Los Angeles 46, Calif.

Television in Teaching. Herbert R. Jenson. A 25-page booklet available from Educational Electronics Division, Thompson Ramo Wooldridge, Inc., Englewood Cliffs, N.J. $1.50.

Teaching by Television. (Second Edition). A 87-page report from The Ford Foundation and The Fund for the Advancement of Education, available from the Foundation, 477 Madison Ave., New York 22, N.Y.

Growth of a Tree and **Forests and Trees of the United States.** Two 24" x 30" wall charts available from American Forest Products Industries, Inc., 1816 N. St., N.W., Washington 6, D.C. Free.

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Ex Litteris

(comments from our readers)

Dear Sir:

At a recent meeting of the Principals' Conference of the Central Illinois District of the Lutheran Church—Missouri Synod, an article from THE EDUCATION DIGEST came under discussion, since part of it directly concerned the parochial schools of our Lutheran Church—Missouri Synod.

The article, entitled "Seven Additional Battles for Public Schools," was written by William Marshall French . . . . In his article, Mr. French made the following statement: "If federal or state aid is ever made available to church schools, or private schools, these institutions will grow in number and size. Not only will Roman Catholic and Missouri Lutheran Church schools apply for their share of the funds; other religious bodies which have long been committed to the public-school ideal will establish, in some instances at least, their own schools and seek to share in the distribution."

Unlike the Roman Catholic Church, which has made its position very clear on this issue, we of the Lutheran Church—Missouri Synod have traditionally felt that government funds should not be used for the support of private or parochial schools. Recently Dr. Oswald Hoffman, speaker for The Lutheran Hour, stated our position in regard to the issue of aid from the federal government to private and parochial schools . . . More recently The Board of Parish Education of the Lutheran Church—Missouri Synod also restated our position . . .

The Executive Committee of the Principals' Conference of the Central Illinois District of the Lutheran Church — Missouri Synod wishes to protest the aforementioned statement of Mr. French. We feel this statement was a false assumption on the part of the writer, one which was made without regard to fact. We feel that the statement should be clarified, and our position stated accurately.

Ronald V. Harman,
Principal, Trinity Lutheran School,
Danville, Ill.

Dear Sir:

Your EDUCATION DIGEST is put to excellent use for many of our students, and I personally find it providing a quick overview of well-selected, significant writing.

Whether you welcome suggestions from individuals I am not sure, but I hope you will not mind my forwarding from time to time an article for you to consider.

Jay W. Stein,
Administrative Associate,
Office of Vice-President for Academic Affairs,
Syracuse University, N.Y.

(*Editor's Note*: We always welcome suggestions and comments from our readers, whether it be articles for possible condensation, ideas for improving the magazine, or comments pro and con on published articles.)

Dear Sir:

We have found that many of the articles in your publication, THE EDUCATION DIGEST, are both important and timely to teachers all over the country. We would, therefore, like permission to call some of your articles to the attention of our teachers through the media of a "Newsletter" which our office sends out periodically . . .

Chris S. Ballas,
Teacher Consultant,
Shawano County, Wis.

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Volume XXVII *September 1961* Number 1

The Education Digest

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MEMBER OF

EDUCATIONAL PRESS ASSOCIATION OF AMERICA

Editorial and Circulation Office: 416 Longshore Drive, Ann Arbor, Michigan.

Advertising Sales Offices:

Ann Arbor, Mich.—416 Longshore Drive, telephone NO 8-7205.

Chicago, Ill.—Didier & Broderick, Inc., 5809 Lincoln Ave., telephone LO 1-5284.

New York 17, N.Y.—Macintyre-Simpson & Woods, 101 Park Ave., telephone LE 2-0020.

Los Angeles 5, Calif.—The Jesse M. Laughlin Company, 711 S. Vermont Ave., telephone DU 3-7697.

Published monthly, September through May, by Prakken Publications, Inc., 416 Longshore Drive, Ann Arbor, Michigan. The annual index is included in the May issue. The contents of THE EDUCATION DIGEST are listed in the **Education Index.**

Subscription Rates: $5.00 a year; 2 years, $9.00; 3 years, $12.00; foreign, $5.50 a year. Single copies, 60c.

Second-class mail privileges authorized at Ann Arbor, Michigan, and additional entry authorized at Oxford, Ind. Printed in the United States of America.

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THE EDUCATION DIGEST

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Volume XXVII SEPTEMBER 1961 Number 1

An Interview with Dr. Hunt

Religion: Its Relation to Public Education

ARTHUR H. RICE

In The Nation's Schools

Arthur H. Rice is editor of The Nation's Schools. *Reported from* The Nation's Schools, *LXVII (March 1961), 59–65, 106.*

IF religion is a normal part of a man's life, should it not also be part of a man's *formal* education? If so, is it the function of a *public* school to impart an understanding and appreciation of religion?

These problems puzzle not only the school administrator and the teacher; they concern the laymen and religious leaders. This is an interview with Rolfe Lanier Hunt, a former educator who for the last eight years has directed studies of these questions by sectarian denominations. Dr. Hunt's background includes teaching and school administration, and seven year's editorship of *The Phi Delta Kappan.*

He has been executive director of the department of religion and public education, National Council of Churches of Christ in the U.S.A., since 1953.

Question: Should public schools keep silent about religion?

When public schools attempt to maintain strict silence, not only regarding particular faiths but also concerning questions of whether or not God exists, this silence is often mistaken for objectivity or neutrality. The practical effect may be to give support to the charge that religious questions have no importance. On those occasions when silence needs to be maintained—and there are some—the silence should be interpreted as a recognition that questions about the nature of God are beyond the province of the public schools, and pupils should be referred to their homes and churches. Religion should remain a live option for each pupil.

While no preferment of one religious group over another should be tolerated, schools should not pursue any trend toward a nonreligious view of life. Attempts to dominate public schools by a sectarian outlook—theistic or humanistic—are to be avoided.

Question: What do you consider

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[redacted]

some of the fundamental questions pertaining to religion and the public schools?

One underlying consideration certainly is: To what extent is the public school responsible for transmitting our religious heritage to our country's children?

Other concerns are: Can the public school teach any part of this religious heritage, or facts concerning it, without violating our tradition of freedom of conscience of the individual? And, can the democratic principle of majority control of public institutions be reconciled with the principle of right of freedom of belief of the individual?

Usually, administrative problems take a more specific form, such as: Shall we sing Christmas carols this year? Shall our school remain in session on the Jewish holidays when half of the children are Jewish and many of its teachers are also? Shall we have Bible reading and prayer in the public schools? Shall we provide for released time?

ADVICE TO ADMINISTRATORS

Question: What advice would you offer the school administrator who faces problems involving religious education?

This: Don't try to decide them yourself. The way the decisions are made is important. Everybody who has a stake in the effect of the decision should have a voice in making the decision. The final responsibility rests on the board of education.

When pressure is put on the school administrator to do or not to do some particular thing, he should develop a process by which all the people in the community share in defining policy. Still, since decisions about religion in public education stand on a special constitutional base, majority rule is not enough; the individual has legally guaranteed constitutional rights.

I see no reason for uniform national policy. I like the traditional plan whereby decisions concerning curriculum are left as close to home as possible, and where parents help make decisions.

Question: How can the teacher "promote religious tolerance effectively," as the Educational Policies Commission recommends?

Let the teacher use the resources which are his in the public-school classroom. His pupils are likely to come from many faith backgrounds. They often welcome opportunities to explain the holidays, rituals, and other observances which are important to them. Such things come up naturally in the context of many school subjects. One element of competence for the public-school teacher is information that will alert him to these opportunities and their appropriate uses. A good teacher will wish to know about his pupils; this means knowing something about their religious ideas as well as their intelligence and health.

Question: Do you think the public schools are doing all that can *be reasonably expected in teaching moral and spiritual values?*

By and large, the public schools are doing what the American people want them to do. I think our public schools have had as much success in teaching moral and spiritual values as any school system in history. Yet we can do better than we are doing. More attention to the ways in which schools teach moral and spiritual values is warranted and can bring good returns in improved instruction.

PRIVATE SCHOOLS BETTER?

Question: What evidence is there, if any, that the private and parochial schools are doing a better job of character education than the public schools?

For eight years I have been looking for objective data to answer that question. I am often asked, "Should our church start a parochial school?"

I can cite no objective evidence that warrants concluding that there are differences between products of public schools and other kinds of schools that can be attributed to the kinds of schools pupils attended.

The objective data I have examined shows that results are related more to the motivations and resources the pupil brings from the home than to the kinds of schools attended. The public school has been as successful as any other kind of school in teaching manners and morals, attitudes and citizenship, so far as the evidence I have seen shows. It is difficult to make a universal statement about either the public or nonpublic systems, since there are many kinds of schools in each, but I think most public schools work at teaching the moral values suggested by the Educational Policies Commission.

RELEASED TIME

Question: What is the significance of released time for the study of religion?

The Supreme Court of the United States has declared that released time is not contrary to the Constitution, provided public-school machinery and power are not used.

Many church people who are unhappy to see traditional practices moved out of the public schools consider released time as the alternative to promoting a parochial, denominational school system.

As I assess the situation, released time works well when there is adequate preparation of teachers, sufficient planning, a good curriculum, and a community where people know and trust each other. Some problems of released time are expressions of rivalries and tensions already in the community.

Question: Do you know whether any high schools today teach specifically an understanding of all the great religions of the world as a matter of information that young people should have?

Perhaps from one-third to one-fourth of our high-school students are exposed to this kind of experience in their social-studies classes. A few high schools have an elective unit in comparative religions. Where a teacher has competence, I see no reason why such an elective course might not be taught the same as any other elective course.

Question: Should a common core of information about religion be developed in the hope that it can get sufficient acceptance by the community or by the state to be offered as subject material in the high schools?

Public schools are common schools that can teach only what the people hold in common—at least in sufficient consensus to support by majority vote and taxation within the limits of constitutional terms. Within legal limits, I would encourage any local community inclined to do so to experiment with this idea, as long as freedom of conscience is observed by avoiding compulsion in participation in the course either as a student or as a teacher.

Question: What is your opinion on certain practices that some consider encroachments on the principle of the separation of church and state, such as financing school lunch programs and furnishing textbooks to private schools?

Members of our committee saw a difference between applying the principle of church-state separation to textbooks, to lunches, and to other health services. The majority supported use of tax funds for school lunches and health services but opposed use of tax money for textbooks. Some of us were willing to see tax funds used to buy books if they were the same as those used in the public schools. I would provide medical care for children in parochial schools as long as complete control of the expenditure of tax funds remains with officials responsible to the electorate.

PUPIL TRANSPORTATION

Question: What is your opinion concerning pupil transportation for nonpublic school children?

The increasing traffic hazard in some places suggests that transportation is a service to the child rather than to the school. If the idea could be considered on its merits, it would have a better chance.

Our committee majority opposed tax support for bus transportation for parochial school children, in part because of many reports that it was used as a precedent for demanding tax support for parochial schools themselves.

Question: Concerning the efforts to appropriate money at the federal government level for school construction and to distribute some of these funds for parochial-school construction, what do you and your colleagues think about this?

In December 1952, the general assembly of the National Council of Churches issued this official statement: "The subsidization of education under religious auspices would both violate the principles of the separation between church and state and be a devastating blow to the public-school system, which must be maintained. The solution lies in loyal support to our public schools and in increasing their awareness of God, rather than in state support of parochial schools."

Question: What is your further personal appraisal of federal support to nonpublic schools?

If tax funds are made available for the support of nonpublic schools, I expect Protestant churches to open parochial schools. We would then have in the American society many parochial school systems, with the public school left for those with no other place to go. In such a circumstance, the public schools would experience increasing difficulty in procuring tax support for improvements, facilities, and staffs.

The day tax funds are made available to church-operated schools, the public-school system will begin to decline.

SCHOOL SUPPORT

Question: Is it true that parents who send their children to private and church schools do not support the schools?

Studies made 30 years ago established this point so clearly that little attention has since been given to the matter in the professional literature. Outstanding individual exceptions to the rule exist, but the evidence shows that parents who send their children to nonpublic schools do not as a group give leadership or effective support to improving public schools. This fact is not necessarily related to any one particular faith group except as its membership in nonpublic schools may be larger.

Parochial schools and private schools now enrol about one out of every eight children in the United States. What will it do if that many more enrol in these schools? I have a theory that when a certain percentage of children in a community is enrolled in schools other than public, the schools of that community tend to decline. The natural school leadership of the community at best becomes diverted from what would otherwise be its common task, and at the worst becomes divided to the point where there are not enough leaders to promote needed improvements in the public schools.

Question: Would you apply that observation also to proposals in some of the southern states that would direct subsidies to private schools, including parochial, as a means of averting integration?

In political life, southern congressional leaders can combine with supporters of church systems of education in other parts of the United States to make federal action entirely possible overnight. This could achieve the purpose of tax funds for nonpublic schools. In my book, this is still another of the facts of life we must take into account as we assess the over-all problem of religion and the public schools. ●

Training for Life or Educating for Life?

The Rise and Fall of Life Adjustment

MAURITZ JOHNSON, JR.

In Saturday Review

TEN years have elapsed since the United States Commissioner of Education called a national conference to consider a report of the Commission on Life-Adjustment Education. In recent years, the U.S. Office of Education has made no acknowledgement whatever of its key role in instigating and promoting the life-adjustment movement.

It is not the intention here to suggest that anything is wrong in the omission, but it is clear that something went wrong with life-adjustment education. Before the episode recedes too far into history, it would be well to give this ill-named and ill-famed movement at least a parting glance. For, despite all the revitalization in American education today, the basic problem with which that movement dealt remains unresolved.

The impetus for the movement came in 1945 from a speech by Charles A. Prosser at a national conference on vocational education. Prosser's thesis was that academic education was serving the one-fifth of students who were college-bound and that specific vocational training was suitable for another fifth, but that for the remaining three-fifths, neither was appropriate. In other words, the majority of adults are neither in the professions nor the skilled trades. Their occupations require little previous training, and abstract academic learning is lacking in significance for them and soon forgotten. The question was: What can the school do to help these young people become better family members, better citizens, better workers? The answer was: life-adjustment education. The answer was considered so good that it was applied not merely to the forgotten three-fifths but to "all American youth," a favorite postwar educational expression.

The term "life adjustment" is meaningless, and this fact surely contributed to the eventual discrediting of what it represented. But the idea underlying the movement was quite unrelated to the

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interpretations commonly accorded the term. Furthermore, the idea was not new. Life adjustment held forth several propositions, none novel and all widely accepted: Education equips people for living. Universal education is essential in a democracy and a necessary concomitant of a philosophy of equal opportunity. The school of a democracy should produce responsible citizens. Happiness of individual citizens is a legitimate goal of free men and their institutions. People usually have occupational and civic responsibilities as well as those in the family.

All in all, the above are so commonplace as to be trite.

How can one explain the vituperative rejection and angry accusations with which life adjustment eventually met? It had the sanction of the federal and state governments, the support of many respected educators, the sponsorship of nine major educational groups, including the National Catholic Welfare Conference and the National Education Association.

WHAT WAS IT?

Exactly, what was this phenomenon of life adjustment? Certainly it was not the stereotype created by uncritical critics who identified it with hairdressing, dating, fly-casting, and homemaking for boys. Actually, it was many things rather than a single pattern, but the underlying characteristic was concern with the problems of the individual student rather than the universal problems of man; with immediate problems rather than enduring ones.

Whereas education has conventionally sought to provide many answers that might apply to whatever problems might be encountered in the future, the new approach was to identify existing problems. Whereas scholars have organized man's knowledge into disciplines comprising the humanities, the natural sciences, and the social sciences, life-adjustment enthusiasts organized man's knowledge into various activities of living such as those of a worker, family member, citizen, group member, and consumer. One organization was structural and emphasized content, particularly that which is most universal and enduring; the other organization was functional and emphasized process, particularly as it applied to personal and contemporary concerns. Both sought to answer the same question: What is general education at the secondary level?

If life adjustment was a miserable answer, the question still remains. We know a future scientist needs all the science he can get; but how much does a future truck driver or waitress need? We are aware of the shocking slaughter on the highways, but should we therefore use our schools to provide driver education for all who intend to operate a motor vehicle? The decline of the family and the high rate of divorce disturb us, but should we seek to improve the situation indirectly by teaching the facts in a sociology course or directly through a course in which students consider how to select a mate and how to enrich life in the home? Must we choose between well-informed neurotics and ignoramuses with excellent mental health?

John Dewey's main efforts were directed against such "either-or" propositions. Were he alive today, he would reject both the nonintellectual exercises of life-adjustment education and the equally nonintellectual rituals widely being performed in the name of academic subjects which stand in need of "unfreezing," not "watering down."

Life-adjustment education failed because it ignored priorities. It allowed future mothers to twirl batons with no opportunity to hear and discuss Brahms. But it arose in the first place because existing programs also ignored priorities. The *battles* of the Revolution were considered more important than the *idea* itself.

It arose, too, because *process* and *application* were being ignored in academic programs. The answers of the past will not fit the problems of the future; our only source of security lies in knowing how to attack problems. Yet the life-adjustment program fell because in attempting to correct this situation it neglected the *content* without which the process cannot be applied, and in concentrating on content pertaining to specific problems, it neglected content which is broadly applicable to many problems.

EDUCATION FOR LIFE

Training for life is one thing, educating for life is another. The former emphasizes the specific, and hence must be limited to the predictable; the latter emphasizes the general, and hence in the long run is more valuable for facing the uncertain and unknown future. Thus, paradoxically, the academic approach makes for better life adjustment, but *only* if sufficient attention is given to the bearing knowledge has on life problems and the process of bringing it to bear on them.

The more academically talented students readily learn this process and recognize applications. They do not need special courses to train them in this respect. Slower students undoubtedly do, but these should always be in conjunction with, not in place of, continued academic study at their level of comprehension. The danger lurking in current pressures for more and earlier and harder academic studies for able students is that vast numbers of merely average students will be excluded from these courses.

The problem of general education for all youths must be solved, and if the elements of a liberal education cannot be suitably provided, life adjustment or something similar to it will bounce back to fill the void. ●

An Opposing View

Team Teaching: Form without Substance

ANNE HOPPOCK

In NEA Journal

TEAM TEACHING" by Robert Anderson, (condensation in THE EDUCATION DIGEST, May 1961) presents a concise description of the locale and organization of team teaching. It seems, however, that the description raises more questions than it answers.

As in various other reports on the subject, Dr. Anderson describes how team teaching is organized, scheduled, and housed. Proponents of team teaching claim that it provides flexibility and efficiency in the use of time, space, materials, and teaching talent. In short, the major intent is to improve teaching.

Practically everyone agrees that teaching can and should be improved. But what improvements is team teaching intended to produce? In what observable ways will the quality of team teaching differ from the teaching it replaces?

In the absence of a clear statement of principles of teaching which team teaching seeks to develop and demonstrate, one can only turn to the literature for clues. These clues may be found in abundance in *Time, Talent and Teachers*, published by the Ford Foundation. This is one of a series of brochures describing activities supported by the Ford Foundation, the agency which provides financial support for the projects described by Dr. Anderson.

Teaching, as envisaged in *Time, Talent and Teachers*, is largely a process of "imparting information," providing whatever repetition or practice the learner needs to take it in, and checking by test or review to assure that he can give the information back. According to the brochure:

"Teachers involved in school experiments have found that the large class is appropriate and educationally sound for imparting the basic information all students must have in a course. No longer, for example, need five biology teachers repeat essentially the same thing about the classification of living things into class, order, family, genus, and species five times a day for a total of 25 presentations."

As a supplementary means of imparting information, Dr. Anderson and the Ford Foundation report cite the use by teacher teams of audio-visual techniques such as

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tape-recorded lessons and overhead projection.

The Ford Foundation report observes that one reason for the projector's appeal is that the teacher can "readily project information to the class without having to turn around"! Further, the tape recorder enhances the efficiency of the teacher by enabling students to receive instruction from him while he performs other teaching roles.

In essence, according to such descriptions of practice, it is the teacher, not the pupils, who does the questioning, the researching, the organizing, the interpreting and generalizing, the using. According to *Time, Talent and Teachers*:

"In the large class, the teacher is primarily a giver and interpreter of information; in the small class, where presumably he confronts factually informed students, he acts both as a consultant who raises questions and counselor who guides students in their search for answers."

It seems reasonable to expect that the resources of time, money, and intelligence used in carrying on a series of research projects, such as team teaching purports to be, should produce some fresh creative ideas about effective ways of stimulating and guiding learning. The kind of "tell and test" teaching based on the imparting-information concept has been too prevalent too long; its ineffectiveness has been demonstrated long since.

Rather than strengthening the *status quo* in teaching, experimentation should develop new and improved ways to put into practice the knowledge about human growth and learning which is now available. These findings show that we need to know better how to utilize and nurture the curiosity of pupils; how to encourage them to be questioners, to learn the techniques of finding answers, to relate learning to their present concerns so they can use it to improve their living; how to provide the personal support and understanding which releases their power to learn.

To avoid the charge of reading the wrong reports of team teaching, or of drawing sweeping conclusions from them, it is important to turn to the proof of the pudding —Dr. Anderson's summary of the outcomes of team teaching.

Dr. Anderson writes, "An immediate need . . . is to make certain that team teaching is not disadvantageous to children," and reports that "no data have as yet appeared in support of the fear that some children will suffer academically or emotionally from team teaching."

EXPECTATIONS

This is encouraging. But is it too much to expect that the results in learning will be markedly superior? And should we not ask that there be some valid evidence that it is beneficial to *most* children rather than be satisfied with some "slight indications" that it may be markedly beneficial to *some* children?

Team teaching seems to create many problems. Dr. Anderson reports: finding adequate time for planning and evaluation, communication difficulties in and between teams, complex problems of human relations, difficulty in finding and training elementary-school "subject-area specialists," confusion in assuming leadership roles and in group process, the need for new buildings designed for team teaching or remodeling existing structures.

Should not the creation of such problems be offset by quite superior learning outcomes?

It is disappointing to read in Dr. Anderson's summary that "standardized test results have been the chief yardstick in determining pupil achievement." The makers of achievement tests would be the first to say that standardized tests measure only a limited area of desired learning and only to a limited degree.

What does this "new" organization produce in the way of power to do more and better thinking, to behave more creatively, to apply democratic values, to become increasingly selfdirecting? How is evidence to be gathered regarding progress toward such goals of education as these?

The case studies by psychologists and trained observers indicate that results are no less satisfactory than in "typical conventional teaching in elementary and secondary schools." What data are there to show that the unmet emotional needs of children are *better* met?

Among other things, we have much to do in our schools to help the unmotivated children. Adults must realize that they cannot impart their skill and wisdom to the young; they can only arrange those conditions which make it possible for each young learner to find his own. It is not enough for a teacher to know his subject; he must know how to help a child know. One might ask, why develop a new form of instructional organization unless it will serve a new or better function and help with problems which have haunted humane teachers for many years?

Dr. Anderson states that "whatever pattern of organization we choose to adopt or continue, we must realize that the basic problems of instruction will remain to be solved . . ."

It may be that the worst feature of our current preoccupation with organization, with moving children, teachers, and subjects about, is that it diverts us from facing up to the hard task of improving teaching. •

ALWAYS be tolerant with a person who disagrees with you. After all, he has a right to his ridiculous opinions.
—From *Tid-Bits,* London.

How the Concept Grew

Social Promotion—a Misnomer?

CARL H. KUMPF

In The National Elementary Principal

CONSIDERABLE harm has resulted from misuse of the term "social promotion." When even educators misinterpret the meanings behind the term, it is small wonder that laymen become upset about its application in their local school systems.

There are far too many educators and laymen who interpret social promotion to mean the annual movement of children from grade to grade with little or no effort being expended by the child. This notion assumes that all a child need do is live for a year and he automatically advances a grade.

The harm results because resistance has grown to any promotional plan which suggests that the student did not "earn" his promotion. Social promotion, 100 percent promotion, continuous progress, and other such plans for grouping children are becoming suspect by the reactionaries who feel that only achievement of grade standards can serve as a sound basis for promotion. A few have seized on one small aspect of attempts to individualize instruction, labeled it "social promotion," and made an unwarranted simplification of the many-sided process engaged in by most schools in the education and classification of children.

We need to examine the conditions out of which the social promotion concept grew.

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For a long time, the curriculum was a collection of subjects, with each subject subdivided into blocks or grade expectancies. Administrators and teachers then set arbitrary levels of achievement for each block, levels the child had to reach before moving on to the next higher grade. These levels, arbitrary because no two schools interpreted them alike, were commonly known as grade standards.

The literature of the early thirties is rife with accounts of the havoc caused by this concept. Failure was common. It was not unusual for 35 to 50 percent of a first grade to fail because of deficiency in formal reading. Success in study of one subject for an entire year hinged on a single examination at the end of the year. It was common to find 11- to 13-year-old boys in the fourth grade. As could be expected, many children dropped out of school as soon as attendance laws permitted.

Several factors militated against this procedure. Money was one. School board members and other laymen began to realize that each failure meant additional expenditure of annual per-pupil cost to keep the child in school another year. The board member more often than the educator raised the question whether this high rate of nonpromotion with accompanying added cost was necessary.

Many experiments followed, particularly with moving half of the declared failures to the next grade while the other half repeated the grade. The results of these experiments were clear—usually very little was gained by those repeating a grade.

Another important factor helping to destroy the practice of wholesale nonpromotion was the growing interest in the child-study movement. Educators and researchers in other disciplines were becoming more familiar with children and childhood. New meanings were attached to child growth, development, maturation, and learning. Few teachers or administrators escaped the interest and excitement of this study.

As secondary-school education for all became a common goal, great concern developed for the number of children who dropped out of school before attaining this goal. In our continued mass approach to educating young people with emphasis on facts to memorize, and failure for those who fell short of the set standards, we showed our unreal outlook. (Statistics show that even today about half of our fifth graders and one-third of our ninth graders do not complete the twelfth grade.)

Out of this grew an awareness that the child was something more than a receptacle for knowledge; that intelligence was something more than memorization.

Most important of all, we learned that each child is an individual, that he learns at his own rate in his own way. A new concept of progress was indicated which would be consistent with our new understandings of the child. Administrative convenience would have to take second place.

INDIVIDUAL ATTENTION

Appreciating the fact that all children are unique, we are now attempting to individualize instruction. Teaching must be rich and varied, the curriculum must be adjusted to the individual so that instruction and content have significance to the life of each child. Each child must be placed where he can do his best.

Grade standards are giving way to an emphasis on highest individual achievement in terms of potential. Whereas grade standards caused undue pressures on the less able and were accompanied by low or failing reports, they permitted the more able to get by with little effort and yet receive high marks. The new approach offers challenge to all children of all capacities in terms of potential. Under this concept, weaker pupils learn no less while the stronger pupils learn much more.

School organization must be altered to agree with this concept. One aspect of this adjustment lies in implementing the conviction that, if a child is doing close to his best in terms of optimum mental, physical, emotional, and social placement, he should remain with his class. In no instance should he repeat work, for learning is continuous.

When a child is not achieving or growing to expected levels, it is for the principal and the teachers to plan to overcome the difficulties. In this process, the parents, educational specialists, and the child are frequently involved. This is sometimes called guidance promotion. It is predicated on the conviction that, given the proper conditions, children want to learn and will put forth great effort to realize their goals.

CHIEF MERITS

The continuous progress plan and the ungraded school have developed from that background. The chief merits of these plans evolve out of the fact that they do not violate our understandings of children and the educative process.

Unfortunately, some have fastened onto one small aspect of this total complex process and popularized the term "social promotion." The chief harm is that use of the term fosters in the mind the notion that pupils are promoted for no other reason than that of keeping them with their social group.

Today we have a few vocal individuals making an effort to have subject-matter mastery as the only criterion for promotion. High standards again are the watchwords. All too few educators and fewer laymen realize that standards, however high, deal in minimums—what is the least achievement that will be accepted for promotion. This notion, as indicated earlier, puts undue pressure on children of low ability and allows the very able to move along with little effort.

Teachers need to be clear in their understanding of the standards position or we will succumb to its appeal. Once convinced by psychology that differences among children are normal, we can then proceed to estimate how they differ and adjust the teaching-learning situation to take these differences into account. When this is done, adjustment to the child's potential is possible.

Certainly, the understandings and procedures involved in helping each child to achieve near his capacity is not the simple, unthinking process often associated with "social promotion." Many good teachers across this country are already doing an excellent job of challenging and teaching the individual child within the context of what has been described and approved here. We can help by dispensing with the misnomer that gives a false label to their work. •

What Are the Basic Goals?

The Junior-High School of the Future

JEAN GRAMBS, CLARENCE NOYCE, FRANKLIN PATTERSON,
and JOHN ROBERTSON

In The Junior-High School We Need

THERE is speculation resulting from the current re-examination of educational philosophy and practice that perhaps too few students emerge from junior-high school today adequately equipped with the characteristics and attitudes concerning them and their world, and the mastery of basic skills of inquiry and study, that we believe should result from junior-high-school experience.

The demands of the future dictate that today's practices be improved. Our young people need an educational program geared to the demands and opportunities of tomorrow. With that premise, we suggest here what the junior-high school of the future should be.

The junior-high school must continue, above all else, to recognize the development of democratic values as its central commitment, in every instructional area and on the part of all personnel. Lacking such values, our young people might become aimless robots answering to any master.

Research indicates that secondary education thus far has exerted relatively little impact on the values of young people. If values are to be affected by educational experience, such experience must exert its effect before the senior-high-school years. Adolescence is an age of reorganization and redirection, yet evidently education concerns itself very little with these phenomenons.

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We believe that the school in a democratic society must provide guidance and deliberate help to young people as they search for values. The junior-high school of the future deliberately will bring young people into situations in which they can explore, discuss, and face up to the confusions and contradictions of values and the unparalleled opportunities that characterize the world in which they live.

Subject-matter content will be

reorganized in terms of the value-building orientation of the junior-high school. For instance, some persons hold that the level of television programming is a direct result of lack of education in taste and discrimination. Yet, today's adults were once in our schools. What was done to help them select wisely and to listen and watch with discrimination?

In social studies, additional use will be made of commercial mass media. The object will be to examine the various media as major social phenomenons, guiding and educating all in developing taste, intelligent buying practices, and enlightened attitudes, as well as for the educational content.

EXPERIMENTS NEEDED

In the future, the junior-high school should rely on a basic policy of experimental development of the instructional program. So far as we know now or can predict, there are no permanent answers regarding what constitutes the best education. We can be sure of continuing change requiring a fundamental and continuing willingness to experiment. Experimentation implies careful study and research. Continual study, revision, and research must be a built-in part of the junior-high school of the future. Only through such means can quality education be assured through the changing years.

The junior-high school of the future should seek continually to improve time arrangements for effective learning and teaching. Quality of learning in most curriculum areas could be improved if time allotments could be more flexible. A longer school day would permit such adjustments. Within the available schedule, blocks of time should be used more extensively than at present. Periods of instruction and study should vary in length according to the needs of learning and instruction, and not be restricted by the traditional inflexible period-schedules now common.

In many metropolitan areas, youngsters have few opportunities for wholesome activities after school. Part of the trouble may be that school closes too early. Laboratories, libraries, and other special facilities are out of bounds after school closes, causing a waste of expensive space and a loss of precious educational opportunities. By adding time to the instructional day, the school's facilities can be used more fully, and students can have a richer and less hurried educational experience.

Extending the school year is essential for similar reasons. The traditional summer vacation is obsolete. Vacations should be provided but spaced throughout the school year. The longer school year permits the total instructional program to be enriched.

The instructional process should be planned explicitly for the junior-high-school years. If young people are to examine, study, and develop articulate democratic values in the junior-high school, and if these are to be years of exploration and discovery in terms of self, vocational, and life goals, then the instructional processes must be geared to these purposes. The read-recite-quiz approach will not do. The emphasis must be on discovery, determining what constitutes a fact or an opinion, on discrimination of sources of information and their relative reliability, and on the process of problem solving.

SHOULD BE UNGRADED

The junior-high school of the future should be an ungraded institution. Today it is recognized that many students cannot be classified readily by grade levels. In the future, students will be assigned to courses on the basis of interests, achievement, and need. Grade level designations will be omitted in certain areas. Instead, subject-matter sequences will be developed and students will be assigned on an individual basis. The various rates of physical, social, and intellectual maturation among junior-high school students constantly emphasizes the need for individual treatment and adaptations appropriate for the age must be made.

Essential to an ungraded organization is the concept that individuals will remain in school for a longer or shorter length of time according to the individual situation. A rigid three-year program in the junior-high school is to deny what we know about adolescent development. A better and highly possible situation is one where some students may move into junior high at a younger age. They may stay longer to be on a developmental par with their age-mates or may continue to progress rapidly. Others, who need extensive remedial work, may remain in junior high longer than three years.

The junior-high school of the future should incorporate routines and patterns that encourage civility in living. No one can be hungrier than a growing adolescent, yet today's junior-high school is organized as though students had no stomachs. We should give sympathetic attention to the physical requirements which indicate a need for a lunch period of at least 45 minutes and a morning and afternoon food break.

The school we need will operate without bells or buzzers shattering the air at the beginning and end of instruction. Already some schools have demonstrated successful elimination of the clanging bell that symbolizes, among other things to young people, the nervous way they are shunted from one activity to another. It is a simple matter to gear the central time control to electronic tapes and fill the school with music when it is time to move about.

Today, individual maturity and serenity are hard to achieve. Yet, aesthetic awareness and creative experience help to make life more meaningful and more manageable. Future junior-high-school students should be provided with an abundance of aesthetic and creative experiences.

Aesthetic considerations must be a basic part of physical planning in new construction of junior-high schools. This trend is already evident in many of the newer schools, some of which are beautifully planned, constructed, and landscaped. Good music will be heard in cafeterias, home economics, and art rooms. Students will play a part in designing and caring for the grounds, taking pride and joy in the grass and flowers they help to cultivate.

Allied to this will be instruction in avocational fields of art, music, and crafts. The purpose here will be to give each student a sense of the joy of creation in some medium congenial to him, an experience that can truly enrich his life.

In the future, the junior-high school should provide extended guidance for all students. Many fateful decisions are made during adolescence—to go to college, to leave school, to prepare for a vocation. Youngsters need all the help that trained personnel can give them. In the future, the personnel should be available, prepared, and the school organized so that there is time for testing, conferring, and following through with counseling on both school and out-of-school problems.

Both the administrative and the teaching staff in the junior-high school of tomorrow should be more effective. Just as we recognize that students have different talents and strengths, so we must recognize that adults have different levels of skills and talents. The teaching staff should be given appropriate differentiated assignments. One may be an excellent lecturer, another equally skillful with individuals. The assumption that all teachers or all administrators can do all things well must be forsaken. When assignments are made in terms of what the teacher or administrator can do well, frustration will diminish, staff morale will rise, and the students will profit.

Gaining knowledge, skill, and understanding are the basic goals for junior-high-school students. Knowledge must be meaningful; skills must relate to use; and understanding needs a foundation in reasoned and disciplined thought.

The preceding proposals are designed to accomplish these purposes by providing a situation in which skills are put to work, in which facts learned have meaning in terms of pupils' understanding, and in which knowledge relates to the values by which the students and adults live.

In such a setting, the tools of learning will have immediate significance and value. School will be an adventure which is increasingly selfmotivated and selfdirected. The school of the future will thus capitalize on the urge of adolescents to reach toward independence and selfdiscovery and the achievement of a well-ordered and creative life. •

A Trend Away from Coercion

Advice to Voluntary Coordinating Agencies

M. M. CHAMBERS

In Voluntary Statewide Coordination in Public Higher Education

IN the developing world of science and learning, should a university move with the vision, alertness, speed, and grace of a hawk, or should it be like a wing-clipped domestic fowl in a henyard enclosed with chickenwire?

A distant administrative bureaucracy superimposed over the university's governing board with power to veto its planning and its budgets inevitably clips the university's wings. And a superinstitutional authority confines a university with chickenwire.

A reasonable degree of statewide coordination must be achieved and maintained because taxpayers and legislators rightly demand it. But need it be achieved, or, indeed, *can* it be accomplished, by "passing a law"—by mandatory, coercive, compulsory methods? Why not by means of voluntary liaison and cooperation among the institutions?

In brief, there are three main ways in which different states have sought to accomplish the continuing correlation of the services, functions, and financing of several higher educational institutions in their confines with a view toward the closest approach to a statewide system characterized by a desirable diversity, accessibility, efficiency, and quality:

M. M. Chambers, formerly Visiting Professor of Higher Education, The University of Michigan, Ann Arbor, was recently named Executive Director of the Michigan Council of State College Presidents. Reported from Voluntary Statewide Coordination in Public Higher Education, *1961, 1–3, 58–68.*

Consolidation, by abolishing all or several institutional governing boards and placing the institutions under the control of a single statewide governing board.

Compulsory coordination, whereby all existing governing boards are left undisturbed except that a new board without the responsibility of operating any institution or system is superimposed as an agency of coordination with mandatory or at least persuasive powers.

Voluntary coordination, wherein the several governing boards and presidents have, on their own initiative, formed a statewide organization through which they accomplish such primary functions as continuing studies of the statewide system, fiscal analysis, agreements regarding initiation of new services and discontinuance of others, and formulating finance proposals for seeking state appropriations which all the boards and presidents can support.

Conclusive evidence as to the relative merits of the three methods is nearly impossible to unearth. Efforts to evaluate the methods consist mainly of intelligent theorizing by political scientists, which may be persuasive, but actually proves nothing. Of the three methods, voluntary coordination has been the least studied and the least publicized.

It is my belief, stemming from a study of the nationwide pageant of the last 20 years, that there is a trend away from coercion. If my observation is correct, then the development of this trend is a major event of the mid-twentieth century, and may well mark a turning-point of historic significance in the evolution of optimum relations between state governments and state universities.

Traditionally and correctly, a state university or college is not regarded as only an element in a routine department of state government. Primarily it is a "developmental arm of society," dealing with developing society's most promising human resources as the best means of advancing the national well-being and security, of elevating the total culture.

Recognizing the paramountcy of these functions, states such as California, Michigan, Minnesota, and others have conferred on the principal universities a status of constitutional independence, separate from and coordinate with the three traditional branches of state government. Is it accident or coincident that the universities of those states are among the most renowned in all the world?

The supreme consideration is that the state universities be allowed to proceed with their work with latitude for selfdirection on the part of their governing boards, presidents, and faculties, in the service of the people of the states.

GUIDEPOSTS FOR THE FUTURE

What advice can be given to voluntary coordinating agencies that are set up to achieve correlation? Events of the past seem to indicate a few guideposts for the future:

Let the agency of voluntary coordination take itself seriously, with due respect for the weight of its task. It could possibly be that this form of organization might be the savior of diversity and autonomy and academic freedom and ever-rising excellence in public higher education.

Emphasize research—fact-finding and honest and thoughtful interpretation. Not research that never goes beyond confidential documents undisclosed except in executive sessions, but research that is published in reports accessible to the public, with the findings not merely published, but also *publicized* by releases to the press and to public relations writers.

Let the agency also publicize *itself*—let the whole world know that it exists, why it exists, what its purposes are, what some of its achievements are, and what some of its hopes may be.

Find means of establishing and maintaining a permanent central office and staff. This much is certain. There are many questions about the optimum structure and organization of the staff, not to be decided dogmatically, but get an office and staff.

The choice between staff workers who are residents of the state and connected with one or another of the institutions represented in the agency, on the one hand, and those brought in from outside the state and wholly unconnected with its institutions may depend on local circumstances, but, at least in theory, the latter choice has an edge.

As to the type of qualifications to be sought in the director, the "big executive" who has had experience in management of large affairs may have some initial advantage in gaining the respectful attention of legislators, the press, and the public, but equally essential are the qualities which characterize a man experienced in conducting and directing research and in writing lucid, truthful, convincing, and attractive reports.

Foster and maintain the statewide viewpoint. What is the greatest good for the greatest number? Encourage statewide (interinstitutional) citizens' committees for education beyond the high school, associations of parents of students, even statewide associations of alumni whose focus is on the statewide system as well as on their respective *alma maters*.

Accept partnerships with the state federation of women's clubs, the state unit of the association of university women, the state association of manufacturers, the state labor councils, the state organization of farmers, the state chamber of commerce, whenever possible without sacrifice of principle. These are strong allies. The people—all the people—eventually decide the fate of institutions.

Accord suitable primacy to the topmost reaches of advanced graduate study and research, as represented by the principal state university. The higher levels merit special encouragement, and the fact that they are relatively much costlier than the lower levels needs to be understood. Every state system needs to thrust upward its topmost point. This is the frontier.

Recognize the principle of wider accessibility of facilities for education for the first two years beyond high school, either through numerous local public junior colleges, or through two-year branches of the state universities, or through a combination of these. Immediate post-high-school educational opportunities should embrace "college-parallel" courses preparing for transfer to four-year colleges; "technical institute" courses preparing for jobs in semiprofessional, subprofessional, and technical occupations; and cultural and vocational courses for adults. •

Common Elements of Effective Learning Environments.

GERTRUDE M. LEWIS

In Educating the More Able Children in Grades Four, Five, and Six

IMPROVEMENT of educational opportunities for the more able children has captured the attention of the public. In response to this interest, a study was undertaken by the author to analyze a few characteristics of the more able children and to report on some school programs judged effective for these students. Since environment is a vital factor in a learning situation, the study attempted to identify some common elements pervading effective learning environments in programs now in operation for the more able students.

In almost every school and classroom visited, the observer noted a dynamic quality of excitement. Children, principals, and teachers were busy about things they believed to be important.

Looking for the cause of this intellectual excitement, the observer realized that in spite of differences in organization there were common elements in the environment, the administration, the teaching, instructional materials, classroom arrangement, and the children's activities. An interrelationship always seemed present, indicating that eagerness or activity in any one area apparently set off a chain reaction.

Gertrude M. Lewis is Specialist for Upper Grades, Elementary Schools Section, U.S. Office of Education, Washington, D.C. Reported from Educating the More Able Children in Grades Four, Five, and Six, *U.S. Office of Education Bulletin No. 1, 1961, 65–73.*

Without attempting to analyze all the work of the principals, it was evident that, whether man or woman, each was a person and educator in his own right, capable of managing an energetic institution with an eye for every element, human or material, that was a part of it, but with major focus on the education of children. Each principal served as a key professional person, ensuring that all school services were administered to the children's advantage, and encouraging the teachers to provide for the growth of individual children.

When visiting a classroom, the principal entered into the spirit of whatever was going on and asked the teachers now and then whether they needed help. He took pride in exhibiting the accomplishments of both children and teachers. He invited close staff cooperation.

Each principal served as a warm,

friendly host in the school. Not only did the visitor feel this, but so did the children. In one school, a disheveled eight-year-old redhead entered the principal's office just to say, "Morning, Mr. M............"

"He comes in every morning," Mr. M........ said. "I guess he needs a man's attention. He doesn't have a father."

Apparently Mr. M............'s pat on his back helped to start the day right for the boy.

Each principal showed this personal interest in the children, often greeting them by their first names, and his questions to the teachers revealed familiarity with the children's progress and conditions affecting their progress.

THE TEACHERS

As for the teachers, there were great differences in personality and appearance, but certain similar characteristics in the way they worked with children became apparent.

The teacher's friendly, understanding approach seemed to put the children at ease and invited an active, thoughtful attitude toward the work. Usually the teacher spoke encouragingly, but when a child showed signs of getting out of hand, he quietly called attention directly to the work to be done.

Creativity and spontaneity marked the teaching. New problems were sought for children to explore; new ways of expression were welcomed. The teachers did not take over and do the creative thinking themselves, nor did they set a teaching pace so fast that the children could not take time to think and express ideas. They changed pace to let the children move ahead.

The teachers took the children seriously, courteously, and with integrity. "Let's do it together" was the invitation for the children to offer ideas. The ideas were welcomed without the customary accepted or rejected signals—the nod, the smile, the frown, the terse statement. All ideas were weighed reflectively by children and teacher for their worth in advancing the thinking or the doing.

Most of the teachers liked and respected both children and subject matter and wanted to bring the two together. They appeared to be well informed, at times even masters of certain subject-matter areas. They were not infallible. Not knowing seemed to be no disgrace. Instead, if the interest or need was high, teacher and children together took steps to find out what they needed to know.

The teachers showed full respect for the traditionally recognized academic fundamentals and displayed insight into how children acquire these fundamentals. Also, the children met situations that called for the use of skills in the fundamentals. Yet, the teachers seemed to understand the unity or relatedness of knowledge and were not disturbed but actually welcomed transgressing subject-matter boundaries.

The teachers showed concern, too, for social fundamentals. Many acts of the teachers seemed to be aimed at helping the children develop positive perceptions of themselves, and of how they, as individuals and as groups, influence their own lives and the world around them. The teachers helped the children clarify thought and action patterns which are controlled by deep-lying, seldom-changed attitudes.

To the observer, long experienced in all sorts of schools, the abundance and adaptability of resources available to the more able students was impressive. Reading and laboratory materials, special opportunities, consultant help, field trips—all were available or readily secured.

Located in the classrooms or in the library or materials center were books needed for current and anticipated studies. Several levels of dictionaries, several sets of reference books or encyclopedias, and supplementary related fiction were likewise on hand. Reading material of a leisure type was available to stir the child's imagination along many lines of interest and to give him pleasure. Usually the class had news magazines and a newspaper.

The laboratory materials were equally impressive, containing all manner of visual aids, demonstration devices, and materials designed to involve the children directly with the physical properties related to the subject matter and specific learning experience.

Contributing to the environment were special provisions for opportunities to explore special interests in many areas. Several schools had clubs in science, music, health, literature, dramatics, creative dance, foreign language, and many other activities. Specialists were available to supplement the teacher's efforts. Here and there, the observer saw evidence of people from the community being invited to contribute to a study.

A particularly striking element in the environment was the physical classroom arrangement. Maneuverability to accomodate function seemed to be the watchword in furniture. Movable furniture permitted arrangement to suit the immediate need. Frequently, the children's flat-topped desks were pulled together to improvise large smooth tables. Later, the children carried their chairs to form small groups with the teacher.

Extensive shelves and wall storage provided ample and accessible space for reading and laboratory materials related to some current study. Supplementary materials were wheeled in and out on mobile units. Wide window ledges, extra tables, filing cabinets, and a storage closet were all available to display work or to store work in progress.

And ever present was the atmosphere created by a group of people, each genuinely interested, each doing his best, and all elements present, both human and material, encouraging him. •

Some Generalizations from Research

Grouping: What Have We Learned?

MAURICE J. EASH

In Educational Leadership

THE functions of research, as far as grouping practices in a democracy are concerned, is to uncover those practices which are supportive to developing democratic personalities and to expose for what they are those practices which are inimical to democratic processes. Any research approach which wilfully ignores this value orientation may participate, however unconsciously, in injury to a social order which has promoted the selfdevelopment of the individual more than any comparable system in history.

Bruno Bettleheim succinctly maps out this road to destruction in his article, "The Ignored Lesson of Anne Frank" (*Harpers*, November 1960). In concentration camps and in civil life, many Jewish people of Germany willingly participated in fashioning their own destruction by suppressing their strong value orientation while cooperating with the Nazis, that they might for a brief time remain physically comfortable. They divorced means from ends in their immediate lives, removing themselves from the realities of the dreadful consequences of their practices.

Witnessing the reaction of many educators to basically discriminatory practices in the school causes speculation whether the same commitment to a comfortable illusion obtained by separating means from ends is not involved in some of the present school practices.

It is imperative that sanctioned grouping practices are those which will support the development of democratic behavior and encourage individual development. This writer is concerned with developing some generalizations which are supported by research findings and to give some guidance in grouping. The generalizations are under three major headings: Ability grouping and achievement, grouping and personal and social development, and areas of needed research.

Ability grouping, sometimes erroneously referred to as homogeneous grouping, customarily places children in a class according to standardized tests scores. One primary motivation for practicing ability grouping has been the assumption that children, especially

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bright children, learn more if they are grouped according to ability and taught separately. How valid is this assumption? Research findings seem to support the following generalizations:

Ability grouping in itself does not produce improved achievement in children. Improved achievement results from manipulation of complex factors involving curriculum adaptation, teaching methods, materials, ability of the teacher to relate to children, and other subtle variables.

Recent research evidence seems to indicate that ability grouping may be detrimental to children in the average and lower ability groups. This is contrary to statements on the effects of ability groupings on achievement that appear in summaries of earlier research. Recent research shows that children of lesser ability do appear to suffer from the deprivation of intellectual stimulation when isolated from brighter children. Conversely, the brighter children do not appear to suffer when left with the average and lower ability students, at least through the elementary school.

Ability grouping at an early age seems to favor unduly the placement of children from the higher socioeconomic class in higher ability groups. These children do not necessarily benefit, at least in elementary and beginning junior-high grades, from the increased academic diet.

Available research (it is meager) does not support the prevalent assumption that college achievement is improved by ability grouping in high school. Rather, improved achievement in colleges as the result of high-school training is a function of many complex factors.

SOCIAL DEVELOPMENT

With the advent of ability grouping as a major instructional procedure, a major concern among thoughtful educators is the influence that ability grouping may have on personal and social development. The question is: Does ability grouping militate against personal development (especially development of a healthy selfconcept) and social development of children? Research findings appear to indicate that the answer is yes.

Evidence is fairly conclusive that grouping practices can assist in developing social situations that influence the student's selfperception, his sense of dignity and worth, and his attitudes toward other children. Grouping practices should be concerned with furthering establishment of social climates that will encourage intellectual, social, and personal development of every child without detrimental effects on individual children.

Grouping practices are significant factors in establishing a teaching-learning situation whereby children can acquire the general skills and abilities all citizens in a democracy need. This means that students need opportunities to work in common purpose with a wide range of individuals. Separating students on the basis of ability reduces the opportunity for exposure to a broad range of ethnic and cultural differences in the society.

Pressures to institute certain grouping practices in our schools represent pervasive social problems in our culture. Educators need to be doubly alert that the schools are not utilizing grouping practices which assist in maintaining and promoting social and racial biases.

The solutions to the broad problems of learning are probably not to be realized in some scheme of ability grouping. The classroom teacher is the key to what happens in any instructional group. Grouping can assist a teacher in attainment of desirable education objectives, but grouping practices are in no sense a substitute for teacher competence.

NEEDED RESEARCH

There is a great need for more and better research in every area of grouping. Unfortunately, many of the current "studies" reported are not predicated on acceptable research design. It would seem that the research design must take into account such factors as: learning in its broadest sense, longitudinal achievement data, pupils' attitudes and values, influence of group interaction, and differences in teachers' classroom performance. The following are but a few areas where research is needed:

There are differences in the problems of grouping as they are encountered in the elementary and secondary school. Both areas need attention in our concern for strengthening our society.

Another problem concerns that vast number of children who, because of their underprivileged environment, have been called disadvantaged. There is some evidence that cultural deprivation begins to exact its toll as early as the age of three. A fruitful research area might be the suggestion that these culturally disadvantaged children start school two years earlier to compensate for the intellectual impoverishment they suffer.

A third problem, which lies at the very heart of the instructional process, and one which will take considerable professional courage on the part of many to face, is a need for an exploration of the reasons for the popularity of ability grouping among our teachers and administrators. Despite evidence that ability grouping is woefully inadequate in reducing to any great extent academic differences of more than one variable, a large segment of the profession seems firmly committed to practicing ability grouping.

A fourth problem in which more research is needed is in the area of creativity. Recent researchers in these areas are raising questions as to whether present grouping procedures do not actually discriminate against creative children in favor of their docile and/or conforming peers. •

Principles, Practices, and Conclusions

Ten Years of Educational Television

In The Uses of Television in Education.

ALTHOUGH still in its infancy, television has already had such an impact on our society and shown such promise of value that all educators must face the question, "What can this medium mean for the extension and improvement of education?"

The question must be explored in the light of evidence developed in the last decade. From that evidence, the following principles may be safely accepted as bases for the planning and use of television in education:

Television is an important instrument for teaching and learning at all levels: elementary, secondary, higher, and adult.

Television is a medium of communication, not a new method of teaching and learning. It permits many variations in the teaching and learning process, but its effective use is based on the same fundamental psychological principles which apply to all successful processes of learning. The attitudes of the learner and the results of teaching are as certain to be affected by the quality of instruction and its adaptation to the needs and motivations of the learner as in conventional instruction.

Students can learn as well where television is used by the teacher as in the conventional classroom situation; frequently, they can learn better.

Proper use of television provides new incentives for students to assume more responsibility for learning.

Television is not a selfcontained educational entity, but an instrument which is significant only in the particular educational context in which it is employed.

Optimum realization of television's potential can result only from the integration of the teaching arts, the graphic arts, and the electronics communication process.

Television can improve the total instruction program.

Effective television teaching demands more preparation and the assistance of more specialized personnel than does conventional instruction.

Successful use of television imposes responsibility for, and high-

Reported from The Uses of Television in Education, *prepared by the Subcommittee on Television of the Commission on Research and Service, North Central Association of Colleges and Secondary Schools, in cooperation with the U.S. Office of Education, 1961, 7, 10–22.*

lights the necessity of, cooperation among administrators, teachers, and other specialized personnel.

Television is such a versatile, dynamic, and new medium that its educational use not only encourages but demands a continuous appraisal of ways in which it is or may be utilized.

Television provides new and better ways of relating the activities of pupils, teachers, and parents and of making the community more aware of educational processes and needs.

Appreciation of the values of television as an educational medium increases in proportion to experience with its proper uses.

DIFFERENT PRACTICES

During the last decade, a number of different practices in regard to the organization, administration, teaching, facilities, and financing of educational television have been used successfully. No one combination of practices can be recommended as a model. The following are some present practices which have proved valuable in at least one community.

In a particular institution, the policies and procedures for educational television are administered by either a board, an executive administrator, a faculty committee, or an individual director.

The functional responsibility is organized as a separate department on a level with other academic departments; as part of another department, such as journalism, audio-visual, or information services; or as an administrative unit with access to all departments.

The instructional staff is usually selected from those who volunteer for the duty. Selection is made after auditions or tryouts before cameras. The teacher is usually paid by released time (release from two regular classroom periods for one television period is common), extra pay, or by providing clerical help.

Frequently teaching-teams plan the content of a lesson or demonstration and the technique of presentation to assure its integration into the classroom lesson plan. A teaching-team is composed of a studio teacher and a classroom teacher, a group of three or more teachers, or a teacher and members of a production staff.

The special preparation of studio and classroom teachers for educational television is secured by learning on the job or by attending the special workshops that are offered by colleges and universities.

Production facilities are in a permanent television studio equipped with cameras, lights, and film and video-tape recording equipment, or a mobile television unit in a field or laboratory situation. Sometimes it may be a television camera in a regular classroom.

The production practices are varied and numerous. A typical presentation would be rather complex. In addition to the teacher, there would be two cameramen, an audio man, a video control man, a "floor man" to assist the teacher with materials and timing, and a production director to supervise the entire presentation. At the other end of the scale, a simple operation would be a single individual using a remote control camera. The lesson may be transmitted live directly to the students or it may be recorded on film or tape for delayed or repeated use.

Methods of financing educational television vary. In some communities the board of education makes a contribution to an educational station of a set amount per year per pupil within viewing range of the station. Some communities solicit funds in the same way that social agencies seek funds from the public or seek foundation financial support. Other finance methods include charging tuition for credit-bearing courses and accepting contributions from business and industry for specialized courses.

A careful examination of the first decade of educational television leads to a number of conclusions. It is certain, for example, that television is being used successfully as an educational tool at all age levels. It is clear that students can learn as well as in a conventional situation. It is clear that administrators at all levels of education should study the ways in which television can be used as an important medium of education.

Educational television is not likely to cause technological unemployment. It may, however, result in some modification of the traditional role of the teacher, especially the teacher in a self-contained classroom who has not been accustomed to cooperating with a librarian and an audio-visual-aids department.

Most teachers adapt themselves readily and successfully to the use of television as a learning-teaching medium. But they do need to have the opportunity to become acquainted with the advantages of the medium.

The benefits resulting from the use of television tend to relate directly to the faculty investment of time and interest in planning.

Television is useful in education in many different ways. It makes possible important improvements in the curriculum of small schools; it is a useful supplement to instruction in large schools.

The values of television in education which have been demonstrated to date make continuing broad experimentation urgent and even imperative. •

TV Helps Education

THE note from the parent read: "Please give Johnny some school work to do at home for the next few nights. Our television set is broken and we can't get it fixed for about a week."—Mrs. Joy Adams in *NEA Journal.*

A Real Community School Program

Lights Are On in Flint's Schools

WALTER MACPEEK

In Scouting

IT is a custom in many communities across our nation that students and teachers leave the school building in late afternoon, and the schools are dark and locked by night. That is not the case in Flint, Michigan, an industrial city near Detroit. When night comes to Flint, the schools are lighted, the doors unlocked, and the people come in.

The figures tell the success story. Some 37,000 children use Flint's 41 community schools in the daytime; 52,000 children and adults use the schools at night.

Flint's successful community school program grew out of a chance meeting of a wealthy industrialist and a schoolman in the depression year of 1935. The depression had hit Flint hard.

Charles S. Mott, a director of General Motors, met Frank Manley, director of physical education of the Flint school system. Mott had served as Flint's mayor for three terms, and as his friendship with Manley developed they often talked about their city, its educational system, and its youth. When Mott asked Manley, "You'd like to build some boys' clubs, I suppose?" the answer was, "No! I'd like to unlock the doors of the dozens we already have."

As a result of their discussion, Mott made a donation to the Flint Board of Education to keep five school buildings open from 4 to 9 P.M. for a trial period. Manley and Mott observed the trial period. The community response was good, the trial period successful, and the Mott Foundation was established with Frank Manley as director to work closely with the Board of Education to develop educational and recreational programs for the entire city. Thus, in the midst of the depression, the foundation led the people of Flint to use their schools on a community basis in helping themselves.

Today, the community school concept as practiced in Flint has become a model for the nation. An average of 100 persons visit Flint each week to observe how that city's schools function as educational and recreational centers for the entire community. And for the past three years education leaders have traveled to Flint to attend community school clinics so that they could return to their own communities and assist in establishing similar programs. •

Walter MacPeek is Associate Editor of Scouting. *Reported from* Scouting, *IIL (October 1960), 4–5, 36.*

Advice to Young College Teachers

The Academic Con-Men

FRANCIS J. KERINS

In The Journal of Higher Education

EVENTUALLY there comes to the average college teacher a disheartening awareness of his own limitations. Visions of transforming society and shaking the world of thought fade in the harsh glare of advancing years. And one realizes that he not only is not yet, but also never will be, a truly creative thinker or outstanding scholar. For the majority, genius is the goal and frustration the reality.

The endless gray night of mediocrity threatens. The gifted few avoid it by their talent. They are of no concern here. Anyone can be extraordinary, after all, if he has extraordinary ability. No trick to that.

The real challenge is for the rest—to become extraordinary, well known, and revered without unusual ability. It is not impossible. It is being done all the time. But it takes flair, boldness, and a sustained effort in a carefully planned program. It is the remarkable achievement of the academic con-man, the man who, despite a lack of originality or tremendous learning, becomes a luminary in the starry heavens of higher education. The young professor can do nothing more profitable for his career than carefully observe and emulate. To such a man are these remarks addressed.

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Reported from The Journal of Higher Education, *XXXIII (June 1961), 312–16.*

Your first step is to establish yourself. The objective is to become a "leading thinker," not by doing leading thinking, but in the infinitely more difficult way of mental legerdemain. It is not so difficult as it may at first glance seem.

Achieving status is a basic requirement. For the beginner, perhaps the easiest method is name-dropping. Speak in public at every opportunity and include in every talk highly personalized references to important thinkers. It helps to insert, parenthetically and with a faint air of apology, intimate anecdotes about the great men. You might use: "As Toynbee has said—Arnold Toynbee (linger affectionately over "Arnold") has the most amusing habit of pulling on his left ear when he is grappling with a particularly vexing concept . . ." It may be that the ear-pulling is really done by Michael Shayne, whom you know about from reading Brett Halliday's murder mysteries, and that you have never been close enough to Toynbee even to know whether he has a left ear. But the impact on the audience is incredible.

As you advance, embellish your status by interspersing your talk with hints that the foundations are after you. "When we work out the details of the grant, we will be able to investigate this problem fully," does very nicely, for example. You know that you have mastered this technique when the foundations do come after you offering grants. Inevitably, they will.

BE VERSATILE

Another prerequisite is to be highly versatile. Arrange with your home institution for an appointment to the department of general studies, or to the committee on curricular integration, or some such ephemeral area, and never let anyone know what your field is. With this start, you will be able to become an authority in almost all branches of learning.

Efficient con-men usually settle on one theme, or gimmick, and devote themselves to its exploitation. This has the advantage of eliminating much study and preparation; you can give the same talk over and over in various places. The choice of your theme is vital. If you select an interdisciplinary vehicle, you will have taken a big step toward establishing your own versatility or universality.

The more sweeping your vehicle is, the better chances of success you have. "The philosophy of space-utilization and its impact on curricular research," for example, could serve as both field and title and could last almost indefinitely. The philosophy of anything is especially good, perhaps because no one seems to know what philosophy really is, and almost no one is willing to admit his ignorance.

An effective method of attaining versatility is to refer periodically to esoteric items from vividly diverse fields. Post-Newtonian physics, cultural anthropology, and non-Euclidian geometry are especially fertile areas.

BE A PIONEER

With status and versatility established, you are ready for the next step. This is to be a pioneer, to be on the forward, cutting edge of human thought, so to speak. Get ahead of the crowd, and they will never catch you.

For this purpose, have new information at hand at all times. Refer to the very recent experimentation which more or less destroys all the concepts of classical aerodynamics; if anyone asks for references, simply tell him that the studies have not yet been translated. Consistently mention obscure books, even nonexistent ones.

It is important that you be about to write a book yourself, when your thinking is crystalized. In general, it is better not to have published before, since this would lay your mediocrity bare for examination at leisure. But if you are going to publish momentarily, the progressive quality of your thought is emphasized.

The most important phase of being a pioneer is to make your vehicle, or gimmick, an entirely new idea. The more outlandish the idea, the more successful you are likely to be.

If your gimmick is sufficiently preposterous, you will be able to promote it by implying that your audience is psychologically incapable of absorbing it. "It is too *new*, don't you see? We have to go beyond the level of thinking to which we are conditioned by our civilization." The "we" is a nice touch. Actually, you *are* beyond that old dull level of thinking, and they are not. You know it, and they know it; but they will admire your humility.

Once established, once you are a leading thinker, and versatile, and a pioneer, there remains only the relatively simple task of maintaining the delusion by impressing your audience. The key is to keep battering them and to keep shifting rapidly.

One cardinal rule is to be obscure. The number of people who can distinguish between obscurity and profundity is startlingly small. You should develop a jargon of your own; either make up words or use ordinary words in new and unclear meanings. Above all, never organize a talk. This is fatal. Logic is your mortal enemy; and you must always leave your audience in a befuddled state.

Besides being obscure, you must be dogmatic. The goal here is a very humble infallibility. Preface sentences frequently with "I am convinced that." The personal element stresses at one time your humility (even though you speak as the repository of truth, you present it as your opinion), your pioneering (you alone are convinced because the rest of the world has not yet caught up with you), and your superiority (you disdain the techniques of the ordinary thinker, such as supporting your position with evidence).

Finally, be patronizing. Mention sources no one has ever heard of, and pretend that you think everyone has read them. Never translate your foreign expressions. Here you are acting as though your audience were educated; were they to remonstrate, they would simply prove what you knew all along, that they are illiterate. Your position is impregnable.

THE REWARDS ARE GREAT

All this is a very demanding program. You will need dedication and discipline of the highest order. But the rewards are great. For those equal to its rigors, the life of the academic con-man offers an international reputation, travel, adulation, and a steady and substantial income. There will ultimately be a high-salaried job in government or industry as an expert on communicational effectiveness, interpersonal relationships, and the best use of human resources. What more could life give you? •

A Seven-Year-Old Experiment

A Humanities Course for All Seniors

DAVID MALLERY

In New Approaches in Education

A HUMANITIES course for all seniors, a course that grew out of a climate of concern for the pupils and that is based on the hope of giving more meaning to the whole secondary educational experience, has just completed seven successful years of operation at the Loomis School, Windsor, Connecticut. Loomis is a boarding and day school with an enrolment of about 400 boys.

The idea for offering a course in humanities first appeared during a teachers' discussion about students going into service during the Korean War. Fears that the students might not seek further education on returning to civilian life, coupled with concern about continuing compulsory military service, and heightened by the growing emphasis on science by colleges, caused the teachers to wonder if the liberal arts were being crowded out of many students' experience.

The plan to give a course in humanities to all seniors was discussed among the faculty and with the junior class who, as seniors, would be launching the experiment. It has now been in existence seven years, and during this time the course has been under constant re-examination and development based on the thinking of teachers, students, visiting lecturers, and even alumni, who have been urged to comment on the course in the perspective of college and life after college.

David Mallery has been a teacher at Germantown Friends School, Philadelphia, Pa., since 1946. Reported from New Approaches in Education; A Study of Experimental Programs in Independent Schools, *published by the National Council of Independent Schools, 84 State St., Boston, Mass., 1961. (Pp. xiii + 192, $1.00) Chapter V, 49–59.*

With its present design, the seniors meet twice a week for a series of lectures in the fields of philosophy, science, literature, and fine arts. In addition, each senior has two major projects of exploration and research on some subject in the humanities about which he has a particular interest. Underlying the course is the conviction, stated by the headmaster, that "the secondary school should be regarded as an end in itself and not as preparation for something else."

Although the course is presented chronologically, it is emphasized that "there is no thought that the student will finish the course with a storehouse of information or that he will have pursued a college course in miniature."

The students' response to the school's experiment was an important factor in the development process. It is best presented by describing the reactions the course director received from two successive groups of seniors.

It was clear that, to the students, this was no longer an experiment; it had become a tradition. "It's something you hear a lot about before you're a senior. It's sort of a tradition, and yet it has the advantage of being something of a novelty, not just the routine."

At first, each group seemed to present a respectful assent to the humanities program as "good for us," "good preparation for college," "training in getting lectures and taking notes." There seemed an assumption that college lectures and courses were going to be challenging and fascinating, and that this course would be a valuable running start.

Yet each discussion group increasingly explored the actual experience of the course. "It breaks the ice," one boy said, "and lets you have a look into the whole business of civilization."

THE RESEARCH PROJECTS

When the discussion moved to the individual research projects done by the students, enthusiasm flared in each group. Discussion moved swiftly from individual lectures to particularly exciting new encounters, and to suggestions about organization and content of the course.

The individual projects are of vital importance in the program. They give the student a personal challenge to explore further things he found especially interesting in the lectures. Beyond the large number of suggested topics, students are encouraged to develop their own field of study. Each student has a faculty adviser who works with him through a series of outlines, drafts, and conferences. Some topics which have resulted in unusually fine achievement include:

The Mathematics of Musical Sounds (illustrated on tape); The Cubist Theory in Painting (with a student's original water color in Cubist manner); A Photographic Study of Walt Whitman's New York Today; Original Musical Composition (recorded on tape); and A Personal Credo in Answer to Marxism.

One student's comment was endorsed by others in the group as best expressing their views about the projects. "The key to this whole business is that paper. It's your *own*, something you make for yourself out of all this rush of new things."

The school is now experimenting with discussion periods to complement the lectures. Students, teachers, even editorials in the school paper, were full of ideas on how this should be done. The issue was very much alive in the school, reflecting the continuing planning and re-examination that is a part of this program, and revealing the impact the program has on teachers and students.

The course has also had an impact outside the school. In the seven years since the course began at Loomis, humanities programs have been established in two nearby public high schools, and a third school is preparing to introduce a similar program.

The chairman of the program at Loomis has encountered some objections to the program while talking with teachers, administrators, and community groups. A frequent objection is "We don't have time for this—we have to get our students into college." The answer to this is that expectations on the quality and quantity of work that students can do are constantly being raised. This is evident in the advanced work programs established in many schools during the last 10 years. Some students are now carrying three college-level advanced placement courses in their senior year. The humanities course is an integral part of the curriculum—not an adjunct. It ties into the courses, building a structure into which they fit.

The administrative staff at Loomis notes some important and helpful points concerning mechanical problems of launching such a program in a school. First, constant re-examining is needed so that the course develops as effectively and as appropriately as it should for the particular school. The mental attitude of the students is important. There cannot be a simple announcement of a new course. The idea needs to be presented to the junior class and explored with them. The students need to be involved. As for the faculty, at least half of the staff should be involved in planning, lecturing, or advising students on their individual projects.

The course should not be expensive. The budget at Loomis is about $700 per year, with a fee of $25 for outside lecturers. The program at Loomis received a boost at the start when the last senior class not to have the course made their graduation gift of $200 to the school for setting up the program.

The headmaster at Loomis, looking ahead as well as back on the seven years history of the humanities course, says:

" . . . we find that we have a program which is rapidly becoming as basic to the Loomis education as the study of English. . . . it could become a full course—instead of just two periods a week; it could become a course that would attract more and more distinguished visiting lecturers who would devote a period to lecturing and a period to discussion; it could become a course that will one day change the whole color of secondary education from concern about units and College Board Examinations and vocational preoccupation to concern about man's search for truth and beauty." ●

What Can the Schools Do?

Junior-High Girls and the Feminine Role

BEVERLY RUTHERFORD

In The Clearing House

SOCIOLOGISTS say that women's lives are no longer a dichotomy of homemaking or career, but a combination of homemaking, outside employment, and community participation. Recent estimates are that 98 percent of all women today will work outside the home at some period in their lives.

Woman's role as a homemaker has changed notably also. The wife's position in the family is equal to her husband's. She marries earlier and is finished with childbearing in her early thirties. She believes that the quality of her relationship with her children is the important concern, not the amount of time spent. Women prefer to provide for their children's daily needs and to be their chief source of comfort.

There is great significance for the schools in this changed feminine role in America. But the personality development of adolescent girls should be considered first before discussing the homemaking and vocations curriculum.

Some experts in personality development maintain that the female organism is more highly integrated and complex than the male, and that it must be allowed to develop with a minimum of restrictions and burdens.

Girls fear growing up. The consequences of sexuality are physiological for girls. Society's evaluation of virginity and its attitude toward illegitimate pregnancy augments girls' fears of their sexual roles. Adolescent girls are preoccupied with themselves, their bodies, and their appearance. Their sex interests are anticipatory. They are attempting to manage many changes, transitions, and transformations; they are anxiously seeking understanding of their problems which they must attempt to resolve before they can continue to mature and become ready for adult living. Some intelligent girls have difficulty in accepting the feminine role, since our society generally considers intellectual activity as masculine.

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What can the school do to help the adolescent girl accept and perfect her feminine role? First, the faculty might be helped to become more aware of the complexities of maturation, both physical and psychological, in a girl. School personnel could be cognizant of the intense feelings, reveries, and worries and know how anxious girls are for understanding of their current perplexities.

The school can aid by providing an educational program which makes sufficient demands and provides organization consistent with girls' needs and capacities at this stage, but not so rigid and exacting as to block personality development. Rigidity, formality and competitive demands may produce turmoil and inefficiency; extreme permissiveness produces despair, as the girls' formless, undirected feelings and interests find so little structure or direction.

The adolescent girls' desire to find solutions to immediate problems provides the perfect starting place for a homemaking curriculum in the junior-high school.

A seventh-grade course of study could focus on the adolescent girl and her problems. Topics could be adolescent physical and psychological development, understanding parents and families, understanding and dating the opposite sex, good grooming, diets and health habits, and selection of clothing and fabrics. The cooking laboratory and sewing rooms could be used to demonstrate, but the emphasis should not be on skills at the seventh-grade level.

In the eighth grade the girls would take the first steps in orientation to fulfillment and responsibilities of womanhood. Studying and discussing women's roles as wives, mothers, workers, and community participants, they would learn of the shift in roles that will occur in different stages in their lives. Without attempting to tell them which roles to choose, they would be made aware of the choices they will have.

Ninth-grade homemaking would be ideal for study of the American family. Boys should be included, as recommended by two former college presidents, George Stoddard and Lynn White, Jr. Subject matter could be drawn from anthropology, sociology, and psychology.

Very important in helping girls perfect their feminine role is the school philosophy which places as much value on girls' achievements as it does in areas where boys excel. This is a belief that equality of educational opportunity does not mean sameness in educational offerings. The different needs of both boys and girls must be fulfilled, and they must be considered equal in importance.

Educators must not only understand but also act on Casey Stengel's statement, "I would hafta say women are different from men." •

These Teenage Girls

A STAGE is what many a teenage girl thinks she should be on, when actually it's just something she's going through. —From *Florida School Bulletin.*

What Have We Accomplished in Reading?

NILA BANTON SMITH

In Elementary English

IN reviewing the progress of reading instruction, the last half-century stands out as a golden period. More innovations have been effected during the last 50 years than during the 300 years previous.

Progress has been marked by a succession of turning points. It seems there will be a period when reading materials and methods are quite similar across the country, then, quite suddenly, a new plan emerges, becomes popular, and is dominant until a further advancement is made.

The decade beginning with 1910 saw the first major breakthrough in reading progress. This was the birth of the scientific movement in education. Publication of the Thorndike Handwriting Scale is generally recognized as the beginning of the contemporary movement of scientific measurement of educational products. Scales and tests in other subject fields appeared rapidly. The Gray Standardized Oral Reading Paragraphs, published in 1915, was followed by several other reading tests to bring measurements of reading into the scientific movement.

As for reading instruction method, the concept of teaching *silent* reading was first proposed in the 1910-1920 decade. Stimulated by discussion at educational conventions and by articles in professional journals, the silent reading method became the most revolutionary concept since the clergy first began to teach reading in churches and dames were teaching reading in kitchens.

The years from 1920 to 1930 make up the golden decade of progress in reading instruction, insofar as fundamental changes in reading practices are concerned. These changes were due largely to the shaping up of the scientific movement, which was now providing new information with improved and extended applications.

Studies conducted during this period revealed three distinct earmarks of progress: the number increased tremendously; they cov-

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ered a wider scope of problems; and many were conducted in classrooms by teachers and other school personnel rather than being confined to the laboratory.

Gray's summaries reveal that 763 studies were reported as compared with 200 during the preceding decade. This increase reflected the zeal with which school people were searching for more information about reading.

THREE SIGNIFICANT AREAS

The studies probed a variety of areas with three emerging as highly significant because they resulted in sweeping changes in practice. The three: silent reading, individual differences, and remedial reading.

The years, 1920 to 1925 might well be called "The Age of Silent Reading." Supported by the development of tests proving the superiority of silent over oral reading in speed and comprehension, and publication of the Twentieth Yearbook, Part II, of the National Society for the Study of Education, which was devoted entirely to the report of the "Society's Committee on Silent Reading," the silent reading method grew throughout the nation's classrooms. Textbooks were produced for silent reading procedures, and teachers prepared exercises for checking pupil comprehension.

This extreme emphasis was soon balanced with other factors, and by 1925 the novelty of the silent reading method had lessened. Investigations revealed some unique uses of oral reading, and school people discovered that there were some special needs for oral reading. The Twenty-Fourth Yearbook, Part I, appeared in 1925 and advocated a broader program of reading instruction, recognizing both silent and oral reading. New courses of study, professional books, and readers immediately reflected the broadened objectives.

With the administration of the newly developed tests, the fundamental truth that there were wide individual differences in the reading achievement of children in the same grade and classroom was realized with a strong impact. This discovery spurred school people to experiment with a variety of adjustments in classroom organization and instruction, designed to cope with this variation in the learning rate of children.

The various plans, on the whole, were patterned after the Winnetka or the Dalton ideas, in which individual progression in reading and other subjects was made possible by means of assignments in subject material that increased in small increments of difficulty. The important point is that attention to individual differences in reading received its first great impetus during the decade 1920-1930.

The concept of remedial reading, and, later in the decade, the reading readiness concept, are the significant marks of progress attained during this remarkable decade.

The ten-year period from 1930

to 1940 may be characterized as one of extension and application rather than of revelation and initiation. Some of the embryo ideas formed in the preceding decade came to full growth.

TRENDS OF THE 30's

Interest in reading readiness reached its peak in this period. Published investigations on reading readiness increased during each successive year of this decade, reaching a peak of 22 studies reported in 1940. The number has decreased steadily since that time. The same trend is evident in unpublished research. The concept has been accepted and we hear little about it at the present time.

Remedial reading, which experienced an off-and-on recognition during the twenties, now became established and gained stature. Many significant studies were conducted in causes of reading difficulties, diagnosis, and corrective procedures. While some laboratory studies were still made, the majority of studies were conducted in the schools. Remedial reading had moved from the laboratories to become a practical experiment in the classrooms.

A new trend was that of giving attention to high-school, college, and adult reading. The emphasis at this level was placed on interests and uses of reading rather than with reading achievement and teaching procedure.

The most prominent event of the thirties, as concerns progress in reading, was the move to teach reading skill as a part of the Activity Movement that swept through the country. In such a program, children worked freely, spontaneously, and actively in following their own interests; and teachers were intrigued with the new idea of trying to get all of their subject matter across through "units of work." This was the first big impetus for bringing a quantity of books into the classroom for reading. There was a profusion of materials that pupils read in doing research on their units.

Although we no longer hear of the Activity Program nor of the teaching of reading in connection with this program, the movement made a vigorous impact on the teaching of reading and other subjects—an impact so strong that its influence still continues.

THE 1940-50 DECADE

The "birthday of the atomic age" is officially set as December 2, 1942, when Dr. Enrico Fermi turned on the first successful nuclear energy machine in Chicago. This achievement and the war overshadowed all else during the 1940-50 decade.

The war had two immediate major effects on reading. One, the number of investigations decreased as the armed services demanded the services of those who would have been doing research. Two, there was the shocking discovery that thousands of young men in the military services could not read well enough to follow the simple printed instructions for camp life.

Coupled with this discovery was the revelation that these young servicemen could be taught to read in an amazingly short time. Concurrently, new investigations disclosed reading deficiencies in large numbers of college and high-school students. These influences combined to produce an interest in reading at these higher levels.

A strong concern also sprung up regarding the effects of mass communication media. Television was not important until the next decade, but comics, movies, and radio caused worry on the part of school people and parents. Numerous popular articles and several studies were devoted to combating what was thought to be the first threat to reading.

The years 1940-1950 were marked also by continuing interest in remedial diagnosis and treatment and a growing attention to the increasing mechanical instruments and devices. A notable increase of attention was also given to personal factors related to reading, such as: interests and attitudes, personal status in social, emotional, and experiential maturity.

AN EXCITING DECADE

The years 1950-1960 make up a most exciting decade in regards to progress in reading instruction. Interest in the topic became almost universal. Not only did teachers in all subjects and at all levels become interested, but for the first time reading instruction underwent harsh and severe criticism by laymen. School people came to the defense of their methods through articles, speeches, discussions, and investigations.

This criticism by laymen had three good effects: it caused school people to examine their methods carefully, it stimulated the interest of parents and other laymen in reading instruction, and it offered school people motives and opportunities to explain the research, psychology, and philosophy on which present methods are based. So even the criticism caused reading instruction to move forward. An indication of the interest during this time is that Gray reported over 1,000 studies in his 1960 summary and said that for the first time in his 35 years of annual summarizing "studies are increasing so rapidly that it is impossible to report all of them." A few of the many subject areas investigated include reading in the content fields, adult reading deficiencies, and television as related to reading.

We are now delving more deeply into the reading process and into the factors that affect it. The more striking pioneering landmarks are behind us. Now we turn our attention to delving deeply into more narrow areas. It is entirely possible that some of the more humble areas will hold even more significance than the more monumental landmarks we have passed. •

A Century of Changes

What Has Happened to Written Composition?

JOSEPH MERSAND

In The English Journal

Joseph Mersand, a past president of the National Council of Teachers of English, is Chairman, English Department, Jamaica High School, New York. Reported from The English Journal, *L (April 1961), 231–37.*

In 1902, Percival Chubb wrote in *The Teaching of English,* "In the complaints drawn up by the colleges against the high schools, it is the inability to write passably correct English that is most severely complained of."

In October 1960, a United Press story appeared in newspapers under such headlines as "Students Stumble on English." "Specifically," reads the story, "they have trouble with English, the language they are supposed to use in communicating their ideas. To put it another way, Johnny can't read, write, or talk properly."

The criticism has changed little during the 58 years separating those comments.

That writing was distasteful and difficult in the past is evident from reports we have from students and teachers. What modifications have been made in method to make it more palatable in our time? The following lists some changes which have come in our century.

It is now recognized that it is important in composition to enlist the interest and pleasure of the pupil. As an extreme example of *violation* of all that is desired in this respect, I submit excerpts from a composition one of my students wrote about an English teacher who approached the problem of class conduct by assigning a composition to a student for every bad conduct mark.

> Don't get the idea that these compositions were little nothings on the importance of good manners in school. Not at all. They were 1000-word theses on such thought provoking topics as 'What Fools These Mortals Be' and 'Why I Am a Conservative-Radical-Reactionary.'
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> . . . I always hoped that somebody would suddenly pile a lot of work on this teacher, whom I considered to be an unfeeling monster, and looking back on it all I guess that's exactly what happened . . . She became chairman of the English department.

It is recognized now, too, that the first essential of real success in composition work is to make proficiency in it seem worthwhile to our students. And, an important part of the method, classroom activities in composition should be founded on, and should grow out of, the experiences of the pupils.

In 1917, Sterling Andrus Leonard's *English Composition as a Social Problem* noted, "We are told that the Americans who can speak and write with effective fluency have learned the art outside of classrooms." Leonard cautioned, "We must not make the mistake of assuming that training in composition is purely an individual matter. Most selfexpression is for the purpose of social communication."

Another modification of method in our time consists of the premise that formal grammar has limited value in the improvement of written composition.

The argument about how much grammar and when and how to teach it is still going on. But there is no argument about the uselessness of learning many grammatical terms which will never help the student to read, speak, or write better. Can anyone believe that if a student knows that in the sentence "He walked a mile for a Camel" *a mile* is an adverbial objective he will therefore write better? Or that knowing that *it* and *there* may be expletives will help him to write more fluently?

Sterling Leonard wrote that, "Defective motivation has been one of the greatest causes of poor instruction in composition." In the past 50 years we have learned a great deal about motivation and the variations of motivation in a single class.

B. A. Hinsdale wrote in 1896: "Whatever adds to the pupil's store of facts and ideas, enhances his power to think, and augments his linguistic resources, will minister to the art of expressing himself in written words."

We now know that enriching the experiences of our students by trips, visits, etc., will stimulate great expressiveness. Earlier, there was a close dependence of written composition on literature study. One might appreciate an occasional bit about Sir Roger de Coverley or Brian de Bois Guilbert, but a steady diet of these two gentlemen as sources for writing becomes surfeiting and at times undigestible.

TEXTBOOKS IMPROVE

An area where change is most apparent is the textbooks for teaching written composition. There are several significant changes.

The earliest books were almost all written by college teachers. In sharp contrast with today, it was unusual for a high-school English teacher in the early decades of this century to write a composition textbook.

Also, change is found in the nomenclature of the textbooks. There is now an emphasis on dynamics and action presented with a more interesting and attractive format. Perhaps the best statement concerning the change in textbooks comes from W. Wilbur Hatfield in his "A Quick Look Back:"

"Place any high-school English text of 1911 beside the handsomely bound, attractively printed, beautifully and pertinently illustrated successor of 1960! And the present model is as much superior in content as in appearance."

Now, for the student confronting a blank piece of paper where he must demonstrate his ability to express himself, and the teacher who must take measurements regarding the student's ability from what he has done to that blank paper. What changes have occured here?

There have been many explorations of ways and means of lightening the burdens of theme correction. They are continuing. The major modification is that composition correction has changed from a pursuit in red ink by a teacher-detective to a constructive evaluation which is shared in by the student-writer and the class.

Today there are many more outlets for students to exhibit their writing efforts. About 50 years ago, extraclass outlets for students' writing began to be emphasized. Now, nearly all high schools have a student newspaper, a literary magazine, or an annual.

We are still struggling to find ways to individualize instruction in composition. Material is appearing that shows us how we can accomplish a great deal even in large classes. If we had to designate the 1960's by any title, we would probably call them the decade of the recognition of the individual.

The guidance function of the teachers of English composition has been recognized for more than 50 years. It is obvious that the revelations of character in writing and the sympathetic understanding by the teacher of composition may be among the most powerful influences in the entire elementary and secondary program. Many would testify to the influence of a wise teacher of English on their lives.

Here is an excerpt from a student paper on the topic "How I Developed an Interest in Writing."

> I can say that I have always written my best, and the most, when I had a teacher who cared, . . . a teacher who cared about what I had to say, . . . a teacher receptive to my thoughts and to my desires. To me this is the most important quality of any English teacher, or of any other subject . . .
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> . . . one is most inspired to express oneself, to communicate, when I had a teacher who cared, and is assured of a recipient. This is the function of an English teacher. •

THE best way of all to improve your vocabulary is to get fun out of words. I enjoy collecting interesting misuses and mispronounciations, such as: "He stepped on the exhilarator." "We are studying jubilant delinquency." "I don't deserve all this ollagoozing." "I don't like to sing solo; I like to sing abreast." "My boy can't come to school. He has indolent fever."—Edgar Dale in *The News Letter.*

Can It and Should It Be Taught?

Creativity in English—a Dissent

SAMUEL WITHERS

In Phi Delta Kappan

Samuel Withers is an English teacher at Scarsdale High School, New York. He is on leave of absence while serving as Associate Director of the Council for Basic Education. Reported from Phi Delta Kappan, *XLII (April 1961), 311–14.*

IT is a prevalent notion that "teaching creativeness" is the highest attainment in teaching English. My comment on this subject is a dissent because in the first place I am not sure just how much it is possible to teach "creative writing" anywhere; and in the second place, assuming that it can be taught, I do not believe that high school is the place to try to teach it.

The work of the good English teacher may be done in love as well as in toil, but I believe it is essentially pedestrian. It is showing pupils what is really available inside what we call the best literature, showing them as much as we can of it, making it make sense to them, and getting them to put as much of it as possible into the bank so that they may write drafts on it later. This involves memorizing. The work of the English teacher is also showing students how they may make themselves accurate, clear, and cogent when they write. It is showing them the devices and techniques by which this kind of writing is accomplished.

Some of you may ask, "Can't we do more than just this? Can't we help the future poets and novelists learn how to express themselves?"

I don't think we should try—at least not in high-school courses in "creative writing." If we do what I have described as the pedestrian job well, neither student nor teacher will have time for such courses. Time which students would spend for these courses writing, reading, and criticizing each other's work with the guidance of a teacher would, for the most part, be far better spent in writing and criticizing expository prose. This is what each student will need to know how to write.

As for their general ability to write today, you do not have to ask college teachers. Look at the letters in the magazines and newspapers. The quality of writing in the letters of even the more literate journals ought to be enough to rededicate us to the work-a-day job of teaching people to say effectively what they mean.

But teachers have been lectured to and laughed at for not nurturing the genius of their charges. The comment that Shakespeare would probably have been a C-plus English student in many teacher's classes, the jocosely written Gettysburg Address (as an English teacher would have corrected it), and other similar comments are all indictments of the stock English teacher for not teaching "creatively." The humor accompanying such efforts is directed at the stock picture of the English teacher: He is a poor plodder.

But if the English teacher is doing his job, he *is*, perforce, most of the time, a plodder. Shakespeare has a much better reward than any English teacher could have given him. Writers of genius will always leave their English teachers far behind. And no English teacher that I know of resents this.

RELIEF FROM HELL

That teachers should not be entirely happy in the pedestrian role is quite understandable. After a few years there is nothing duller than correcting expository compositions—with the same punctuation errors, the same misspellings, the same gaps in logic—and, often, complete lack of logic. The teacher soon gets as sick of writing the same comments as he does of seeing the same mistakes. He begins to form his own, un-Miltonic but very specific, idea of what Hell must be. He is willing to take on the yearbook (and cafeteria duty to boot) if it relieves him of one class. If the department offers a class in "creative writing," this becomes a plum—some teacher's small relief from the monotonous Hell.

OTHER REASONS

But to do the teacher justice, he is glad for the assignment to a class in creative writing for other than negative reasons. What percentage of us, I wonder, has never had something published, never received a rejection slip, or never taken part in amateur dramatics? I would not insist that we are all frustrated creative artists; but certainly with many of us there is that paternal *Son, I want you to do better than I ever could* attitude. We take a vicarious joy in the creative efforts that we know we, ourselves, could never have produced. There is nothing wrong with this as long as we do not institutionalize it in classes in "creative writing."

I have a student who I believe will be a writer—not a Shakespeare, but a good writer, very probably a professional writer. You may murmur, "No thanks to *you* if he becomes one." And with that I would agree. If he becomes the writer I think he will be, it will be because he is highly talented and is willing to put in endless hours exercising his talent. It will be the old formula of inspiration and perspiration.

John Ciardi says, "Imaginative writing cannot be taught: it must be learned. What every writer must have is inventiveness, and there is no way of teaching inventiveness. If a student has it, plus willingness, then the right teacher can help him learn, but he must be a natural learner. This leaves it up to finding a good teacher and bringing him together with a willing and able learner. And how does one theorize the accident of human encounter?"

The chance of that encounter in high school is not enough of a chance to justify the structure of a course based on it. If assistance can systematically be given to writers, each writer will first have to prove himself by laboring in his craft beyond the twelfth grade.

A COUNTER-CURRENT

But for the high-school teacher who has reached Hell-point in his routine compositions, or who really hopes to help a son rise higher than his father, there has been a current of opinion in our profession to help him out. The courses, both credit and extracurricular, in creative writing have multiplied in our high schools. For at least a dozen years that current has been getting stronger. Now, although that current may not be waning, there is a rapidly increasing counter-current.

In the spring of 1960, scholars of the University of California and Stanford University wrote in a report by the San Francisco Curriculum Survey Committee: "Of all the forms of writing, exposition alone is essential to every student: the essay, the orderly argument, the critical analysis, the report, etc. So-called 'creative writing' is a luxury that almost no students of high-school age can afford, and is not under any circumstance 'teachable' in any meaningful way. The orderly expression of rational thought and the orderly presentation of factual material is another matter."

In an article by Jacques Barzun entitled "The Cults of 'Research' and 'Creativity'" that appeared in the October 1960 issue of *Harper's*, Barzun writes: "In . . . writing classes . . . creativity means, on the student's part, evasion of standards of performance; and on the instructor's part, abdication of judgment. If the student were truly creative, no one would be capable of judging him . . ."

The preliminary statement of the Commission on English of the College Entrance Examination Board says, "Most of the (composition) assignments . . . should call for the writing of expository prose. Training in exposition is necessary for college and later years. Under skilled guidance, students will find expository essays no less 'creative,' no less expressive of their thinking selves, than stories or poems."

Well, so much for documenting the counter-current. It is there, and I hope it will be increasingly felt.

For the English teachers, let us not disparage the pedestrian side of our work: the endless checking of memory work or the explication of a passage of prose or poetry for the 25th consecutive year. Much of our work on earth is, rightfully, monotonous. Perhaps if we do it here we shall be spared it later! •

For the Three-to-Eight Year Olds

Planning Schools for Young Children

JAMES TAYLOR, LILLIAN GORE, and HAZEL GABBARD

In Functional Schools for Young Children

FOR more than a decade there has been a tremendous school building program in this country to keep ahead of increasing enrolments. The old red-brick school house has been replaced in many communities by new, attractively designed buildings, reflecting greater insight into children's needs. Since schools epitomize the attitude of adults toward children, it appears that a change in community concern and planning for children has taken place. Though our goals are not fully realized, there has been progress in providing adequate schoolhousing for all children.

As the birth rate has mounted, thus increasing the school population, other changes have taken place. Parents send children to school at an earlier age and keep them in school longer. The extension of the school age has influenced our schools and school buildings at both ends of the age scale. Here we will be concerned with the lower end of the scale.

The lowering of the school-entrance age and the entrance of more children into nursery school and kindergarten has placed a heavy load on school facilities. The appearance of three-, four-, and five-year-olds in our schools in increasing numbers is a challenge to educational planners and architects of elementary-school buildings. They need to review child growth and development and the many types of activities in early childhood education. They must remember that children are different, that they grow in all phases of development, that they grow continuously in orderly, though uneven, stages, and that they have a natural urge to activity and a desire to learn.

Children from ages three to five shift from one activity to another. They push blocks, pull wagons, ride tricycles, build and mold with clay. They particularly like to explore their environment. The four- and five-year-olds engage in more complex activities, requiring more

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and different apparatus and materials. They not only explore their environment but strive to gain some control over it.

Children from ages six to eight grow less rapidly but more evenly than younger children. They continue to be very active. They, too, respond to space, color, texture, sound, and motion. They like to dance, to build houses, and to play store. In addition, they are learning to organize ideas and to reason. Many children at seven and eight are developing precision in writing and reading and in some measure understand time, space, quantity, and size.

Planners and architects must know and understand these characteristics of young children and remember that young children learn and develop by experience, forming concepts and developing understanding through interaction with their environment. The school program for these children reaches beyond the classroom walls to draw the problems and resources of the community into the instructional environment. These children need space and materials for working and experimenting. They need experience in planning and working with things, caring for animals, growing things in soil, and manipulating simple tools and machines.

The school plant in such a program becomes a learning laboratory. It should also include provisions for special services such as lunch, health examinations, and first-aid.

The new look in elementary schools is evident to even the most casual observer. Sites are larger and away from congestion. One-story structures are located to promote safety, for efficient use of play areas, and to enhance the esthetic setting. When one sees a school building that meets this description, the chances are he is seeing the results of careful planning.

To guide the designer, the staff and community leaders should state clearly and simply their educational purposes and the plant requirements. Educational specifications should indicate pupil and community needs so that the architect can interpret them in working drawings. Functional planning of facilities should be a cooperative project of lay and professional people, and the teachers should assist in the planning. Since teachers, along with the pupils, are the chief users of the facilities, they can be helpful in describing requirements.

SURVEY RESULTS

To determine how well new school construction is working in practice, teachers and principals using new schools were questioned in a recent U.S. Office of Education survey. The following points seemed to emerge from the survey as being significant in the planning of new facilities for young children.

Planning for adequate space is extremely important. Teachers and principals desire more space, both inside and outside, than is available in many of the new buildings. Their requests for functional storage and more exits should be given serious consideration.

Also, as programs expand downward to include younger children the parents' participation will increase. Few new plants include facilities for parents. Other suggestions concerning space showed a need for conference rooms, provisions for individual instruction, and consultation space for specialists who work with teaching staff and children.

The importance of planning carefully the location of exits, toilets, and other facilities was mentioned frequently. Outdoor exits directly from classroom to playground are favored, and toilet facilities with easy access from both areas is highly favored.

Complete classroom units are desired by teachers of young children but they also request general-use rooms where they can take children for assemblies, lunch, and physical education.

When planning facilities for young children, planners and designers must constantly keep in mind the children who will be using the facilities. This is very evident in the teachers' suggestions concerning decorating, equipping, and furnishing the classroom.

Lighting in the new classroom for younger children must be planned for pupils who will be facing in any direction while at work. Most schools depend on daylight for the prime source of illumination and use electric lighting as a supplement. Quality as well as quantity of light should be part of the planning.

The colors of walls and ceilings should favor neutrals. Floors may be of wood or composition tile, with ease of maintenance a primary consideration. Floor color should be chosen to blend with other room colors.

Many teachers and principals prefer radiant or panel heating in classrooms for young children, since many of their activities are on the floor level. Air-conditioning is growing in application in school construction. If it is not planned at time of construction, the design should be such that it may be added economically at a later date.

There is one more point that seems to be the general opinion of many school administrators, supervisors, and teachers. Although the size of an elementary school is dependent on a number of local factors, it's the general opinion that for an effective educational program an elementary school should be within an enrolment range of 300 to 500 pupils. •

THE youngster said he couldn't tell "b" from "d." "That's easy," a classmate told him. "Remember that 'd' has its stomach in the back."—From *Christian Science Monitor.*

★ With Education in Washington ★

THE EDUCATION DIGEST WASHINGTON BUREAU

Time for Decision. – As the Washington summer wore on, and congressional wives again asked why a recess can't be taken while their children are on vacation, Congress stayed in session, trying to pass school legislation before adjourning until next year. Some say that House Speaker Sam Rayburn (D-Tex.), a bachelor, doesn't understand the seasonal rhythm of family life. Others more familiar with Congress recognize that it often takes Congress time to come to agreement, time in which alternatives can be attempted and voting strengths evaluated, and bills will be lost by adjourning too soon.

That has been true of the aid-to-education measures this year. President Kennedy proposed $2.5 billion in grants to states for public-school construction and teachers' salaries. Under pressure, he later conceded that loans to enable private schools to build certain types of classrooms would probably be constitutional. The National Defense Education Act now offers loans to private schools for science, mathematics, and modern foreign-language teaching equipment. Since the life of the NDEA was to be extended this year, an amendment was immediately proposed that would also authorize loans for construction of classrooms in which to teach these subjects, and physical fitness as well.

The private-school loan proposal, which chiefly but not entirely means parochial-school loans, has aroused strong feelings among many vocal voters. Congressmen dreaded the coming day when they would have to answer the inexorable roll call, sure to displease one religious group or another. There was consternation, though, when the House Rules Committee killed all education legislation by a narrow but unyielding 8-7 vote.

Not only had the Rules Committee pigeonholed the President's bill, classroom construction aid to the colleges, and the continuation of NDEA, but it had also eliminated the popular program of federal grants to "impacted areas," 3800 school districts with many children whose parents are federal employes. These schools are in 319 Congressional districts, where Congressmen faced the awesome prospect of explaining to the folks at home that, instead of voting any new help for the schools, they had in effect cut local school budgets by an average $1 million annually.

The search for a workable compromise, therefore, began at once. The most acceptable bundle of legislation seemed to be continuation of NDEA without private-school loans, public-school construction grants but not funds for teachers' salaries, and extension of aid for "impacted areas," the binding force that would put through the compromise, if anything could. Private-school proponents would be disheartened by rejection even of limited loans for classroom construction, but on the other hand they have opposed grants supporting public-school teachers' salaries, and these would also be dropped from the bill.

Until Congress finally adjourns around Labor Day, not even Sam Rayburn would know whether this compromise could be written into law. At the time of this writing, it looks as though the final decision will probably be made on the very last day, and aid to the schools will certainly be accepted or rejected by a very close margin—perhaps one vote either way.

15 Minutes a Day.—At the close of a recent press conference, after the stenographers had closed their notebooks, President Kennedy spoke about physical fitness to a handful of reporters lingering in the State Department auditorium. In response to a question, Mr. Kennedy suggested that stadiums and contests are not the answer to a problem he considers serious. He proposed instead that every school child do 15 minutes of calisthenic exercises each morning, standing beside his desk, perhaps immediately after the salute to the flag.

A few days later, when 30 of the 38 states with physical-education directors were represented at a meeting convened in Washington by the Administration, the President's brother indicated that individual physical fitness is one of the factors Mr. Kennedy has in mind as he considers national strength and purpose.

"A great deal of thought has been given during the last 10 years to moving ahead in this field," Attorney General Robert F. Kennedy told the two-day conference. "But from observations during trips over the country by the President and me, we have the feeling there has been a great deal of talk about it, but very little action on it. We have a feeling we have a responsibility to get something done, rather than talk. The burden is on our shoulders to get things done."

School Population Forecast.—In nearby Suitland, Md., electronic tapes containing billions of bits of information are whizzing through data-processing machines as the Census Bureau analyzes the United States of 1960, when it last counted noses. Now the Bureau has issued its official forecast of school and college enrolment for the next two decades (*Current Population Reports*, Series P-25, No. 232, for sale by the Bureau of the Census, Washington 25, D.C., for 25c).

By 1980, the Census experts predict, enrolment through high school will increase by more than half; college enrolment will double and perhaps triple. The Research Division of the National Education Association paid the Census Bureau to process some of these data on a state-by-state basis so detailed predictions could be developed for the school years 1964-65 and 1969-70. The result is a series of 10 tables published by NEA as *Population Projections, 1960–1970* (available from the Research Division, NEA, 1201 Sixteenth Street, N.W., Washington 6, D.C. for 50c).

The NEA's tables predict that: By 1965 California will pass New York as the most populous state. Arizona is growing more rapidly than any other state—its population will be up 54 percent by 1970. Nevada and Arizona ought now to be preparing for an increase by 1970 of more than 100 percent in their college-age groups. California, Delaware, and Florida have a problem of the same sort and in nearly the same dimensions. Seven states are losing school-age population—Alabama, Arkansas, Kentucky, Mississippi, North Dakota, Oklahoma, and West Virginia.

From Cockpit to Classroom?— Administrators looking for teachers to cope with the large enrolments to come might turn to retired officers and enlisted men. Starting this year, many who entered the armed service during World War II will be retired. In the next 10 years, the number of people receiving military retirement pay will more than double, rising from 255,000 to more than 616,000. By 1980 there will be about a million retired military careerists.

A recent study found that the typical recently retired officer is a man in his middle 40's, with two years' college education, married with one or two other dependents, and with a civilian income of less than $6,000 annually. Two-thirds have full-time jobs but one-fifth have no employment. Less than 5 percent of those at work were teaching. Forty percent of the recently retired officers live in three states – California, Florida, and Texas.

Apathetic Voters.—Why are voters so apathetic in school bond and tax elections? The U.S. Office of Education has made public a study which attempts to answer that question.

The Office of Education said that a Cooperative Research Study, financed by the government and conducted by the school of education and the Institute of Communication Research, Stanford University, reveals less than two voters out of five have shown sufficient interest in school bond and tax elections to cast their ballot in the 12 years preceding 1960. The average turnout was only 36.3 percent of the eligible voters.

Lack of interest in school financial elections is largely due to the feeling of many voters that school problems are so complicated they cannot hope to decide whether the issue should be accepted or defeated, the study said.

The turnout is greater in elections where issues were defeated in both bond and tax elections regardless of the size of the school district, the study reveals. •

• Educational News •

Changes in Superintendencies:

Cleveland, Ohio: **William B. Levenson,** formerly deputy superintendent, has succeeded **Mark C. Schinnerer,** who resigned, effective Aug. 1, after 14 years as superintendent.

Kalamazoo, Mich.: **Richard N. Percy,** formerly assistant superintendent, has been named successor to **Thomas R. Bowman,** resigned.

Rochester, N.Y.: **Robert L. Springer,** formerly supervising principal, Sewanhaka High School District, Floral Park, N.Y., is now superintendent.

Monrovia, Calif.: **Harold A. Beall,** formerly superintendent at Springfield, Ore., has been named superintendent.

Staunton, Va.: **T. C. McSwain,** formerly assistant superintendent, has succeeded **Lucius F. Shelburne,** retired.

Mineola, N.Y.: **Ben Wallace,** formerly principal of Mineola High School, has been named successor to **Raymond F. Ostrander,** who is now professor of education at Boston University.

Harlingen, Tex.: **Harvey Broyles,** formerly assistant principal, has been named acting superintendent, succeeding **C. M. Callihan.**

Alliance, Ohio: **L. E. Law** has been named successor to **Granville S. Hammond,** resigned.

Massillon, Ohio: **Virgil E. Blanke,** formerly superintendent at Napoleon, Ohio, has succeeded **L. J. Smith,** retired.

Rome, Ga.: **Milton S. McDonald,** formerly high-school principal, Moultrie, Ga., has replaced **E. A. Crudup,** now administrator for the state's educational television system, Atlanta.

Portsmouth, N.H.: **Herbert R. Hagstrom,** assistant superintendent, has been named successor to **Raymond I. Beal** on his retirement in Feb. 1962.

Sacramento, Calif.: **F. Melvyn Lawson** has succeeded **William J. Burkhard,** retired.

College Presidents:

University of New Hampshire, Durham: **Eldon L. Johnson** has resigned, effective Jan. 1, 1962, to become president of the newly created Great Lakes College Association.

University of Texas, Austin: **John R. Smiley,** formerly vice-president and provost, has been named successor to **Harry H. Ransom,** now chancellor of the University system.

Bradley University, Peoria, Ill.: **Talman W. Van Arsdale, Jr.,** formerly with Worcester Polytechnic Institute, Mass., has succeeded **Harold P. Rodes,** now president of General Motors Institute, Flint, Mich.

Pratt Institute, Brooklyn, N.Y.: **Richard H. Heindel,** formerly president of Wagner College, Staten Island, N.Y., has been named president, succeeding **Robert F. Oxnam,** now president of Drew University, Madison, N.J.

George Peabody College for Teachers, Nashville, Tenn.: **Felix Robb,** dean of instruction for 10 years, became president on Aug. 31 when **Henry H. Hill** retired.

College of William and Mary, Williamsburg, Va.: **Alvin D. Chandler** is now chancellor.

Stout State College, Menomonie, Wis.: **Verne C. Fryklund,** who retired as president on Sept. 1, has been succeeded by **William J. Micheels,** formerly of the University of Minnesota.

Baylor University, Waco, Tex.: **Abner V. McCall,** formerly executive vice-president, has succeeded **W. R. White,** who has accepted the newly created position of chancellor.

Howard University, Birmingham, Ala.: **James M. Nabrit, Jr.,** formerly dean of the school of law, is now president.

Central Washington College of

Education, Ellensburg: **James E. Brooks,** formerly assistant to the president, Portland State College, Ore., is now president.

TEACHER-TRAINING INSTITUTIONS:

State University of Iowa, Iowa City: **Willard R. Lane,** formerly at the University of Minnesota, Minneapolis, is now professor of education.

University of Buffalo, N.Y.: **R. Oliver Gibson,** formerly lecturer at Harvard University, is now associate professor of education.

Northern Illinois University, DeKalb: **William H. Coffield,** formerly associate director, University Council for Educational Administration, Columbus, Ohio, is now head of the department of elementary education.

University of Rochester, N.Y.: **Max G. Abbott,** formerly at the University of Chicago, Ill., is now associate professor of education.

Kent State University, Ohio: **Robert E. Wilson,** formerly of Temple University, Philadelphia, Pa., has been named professor of educational administration.

New York University, N.Y.: **Daniel E. Griffiths,** formerly professor of education at Teachers College, Columbia University, has been appointed associate dean, school of education.

Iowa State University, Ames: **Charles F. Faber,** formerly at the University of Chicago, is now assistant professor of education.

Sam Houston State Teachers College, Huntsville, Tex.: **W. R. Carmichael,** formerly superintendent at Bryan, Tex., has been appointed professor of education.

Bradley University, Peoria, Ill.: **Merle M. Kauffman,** formerly high-school superintendent at Waukegan, Ill., is now head of the department of graduate studies in the school of education.

University of Washington, Seattle: **Gordon C. Lee,** formerly professor of education at Teachers College, Columbia University, has succeeded **Francis F. Powers** as dean of the college of education.

University of Pennsylvania, Philadelphia: **Edwin Keim,** formerly principal of Cheltenham Senior-High School, Wyncote, Pa., is now assistant dean of the school of education.

Valparaiso University, Ind.: **John Conrad Seegers,** former president of Muhlenberg College, Allentown, Pa., has been appointed consultant to the president, and visiting professor of education.

Wisconsin State College and Institute of Technology, Platteville: **H. C. Wilkerson,** professor of education, has retired after 36 years of teaching at the college.

St. Cloud State College, Minn.: **Irvamae Applegate** has been named head of the department of education.

Carnegie Institute of Technology, Pittsburgh, Pa.: **Thomas L. Hilton** has been named to the newly created position of director of teacher education.

University of Rochester, N.Y.: New appointees as assistant professors of education are: **Dean Corrigan,** formerly district high-school principal in San Jose, Calif., and **Robert Lee Osborn,** formerly of Indiana University.

Boston University, Mass.: **Burton Blatt** has been appointed chairman of the department of special education. He formerly was chairman of the same department at Southern Connecticut State College, New Haven.

Florida State University, Tallahassee: **Stephen J. Kneezevich,** formerly professor of education, State University of Iowa, Iowa City, is now head of the department of administration, supervision, and curriculum in the school of education.

University of Arizona, Tucson: **Paul M. Allen,** formerly associate secretary for research and studies, American Association of Colleges for Teacher Education, is now assistant dean in the college of education.

University of Connecticut, Storrs: **F. Robert Paulsen**, formerly professor of education at the University of Utah, has been named dean of the school of education.

OTHER CHANGES AND APPOINTMENTS:

Winfred L. Godwin has succeeded **Robert C. Anderson** as director of the Southern Regional Education Board. Dr. Anderson resigned to become executive vice-president of Auburn University.

William A. Jenkins, professor of elementary education, University of Wisconsin, Milwaukee, has succeeded **John J. DeBoer** as editor of *Elementary English*. Professor DeBoer was editor 19 years.

Theodore C. Sargent, Swampscott, Mass., has been elected 1961-62 president of the National School Boards Association.

Rex M. Smith has succeeded the late **R. Virgil Rohrbough** as state superintendent of schools, West Virginia. He formerly was an assistant superintendent.

Roy A. Price, professor of social science and education, Syracuse University, has been named president of the Association for Higher Education.

Merritt M. Chambers, formerly visiting professor of education, The University of Michigan, Ann Arbor, is now executive director of the Michigan Council of State College Presidents.

G. Robert Koopman, assistant state superintendent of public instruction for Michigan, retired in June after 40 years in education, 26 years as a member of the Michigan Department of Public Instruction.

J. K. Acree, formerly superintendent at Cartersville, Ga., is now executive secretary, Georgia School Boards Association.

Mortimer Smith has succeeded **Thomas A. Bledsoe**, resigned, as executive director of the Council for Basic Education.

Recent appointments announced by U.S. Commissioner of Education Sterling M. McMurrin include: **Nathan A. Pitts**, formerly of Coppin State Teachers College, Baltimore, Md., named program specialist in the international education division; and **Harold Howe**, named chief of the Graduate Fellowship Program administered under the NDEA. Dr. Howe succeeds **Robert Bruce**.

RECENT DEATHS:

Joseph K. Stevens, retired superintendent, Medford, Mass., and a past president of the National Association of Secondary School Principals, at the age of 75.

Fred S. Hultz, president of North Dakota State University, Fargo, at the age of 67.

A. Howard Meneely, president of Wheaton College, Ill., at the age of 62.

Harry K. Eby, national director of school relationships of the Boy Scouts of America since 1947, at the age of 60.

Douglas Lawson, former dean of the college of education at Southern Illinois University, Carbondale.

The Drop-Out Problem

PLANS for an intensive program aimed at reducing the number of young people who drop out of school before finishing high school have been announced by the National Education Association.

The program, which is scheduled to start the first week in September, will also seek to establish what the role of the schools should be in serving the educational needs of unemployed, out-of-school youths between the ages of 16 and 20.

The study, to be financed largely by a grant of $190,000 by the Ford Foundation, will be directed by Daniel Schreiber, a former school principal who was director of the New York City Higher Horizons Program for pupils from slum neighborhoods.

The Ford Foundation also has announced new grants totaling $910,000 for attacks on the drop-out problem and other programs to help school children in slum neighborhoods in Detroit, Philadelphia, St. Louis, and Richmond, Calif.

The new grants, announced in July, bring to more than $3 million the total the Foundation has granted in the last year for concerted programs to improve education in blighted areas. The bulk of these funds have gone to school systems in Buffalo, Chicago, Cleveland, Milwaukee, Pittsburgh, San Francisco, and Washington, D.C., in addition to the four cities mentioned above.

Test Programed Learning

THE Educational Testing Service, Princeton, N.J., has announced a new project to develop practical, quality-control standards for programed learning, or teaching machines, to help educators guard against costly mistakes.

The developmental work of the project is being supported by a $100,000 grant from the Carnegie Corporation. Frederick L. Ferris, Jr., will direct the study.

The evaluation standards will be concerned mainly with such questions as: Is the content up to date and worthwhile? Does the programing meet standards of technical excellence? Can the programed material be effectively communicated to students?

Euclid Must Go

A UNIVERSAL shift in emphasis in mathematics teaching—stressing the logic, structure, and unity of mathematics as a whole, instead of the mere solution of routine problems in isolated branches of the subject —is urged by top-ranking mathematicians and mathematics educators of 16 European nations, the U.S., and Canada.

This conclusion is included in a report recently issued by the Office of Scientific and Technical Personnel of the Organization for European Economic Cooperation, set up in Paris in 1958. The report, "New Thinking in School Mathematics," was prepared by Howard F. Fehr, head of the department of teaching of mathematics, Teachers College, Columbia University.

A specific proposal in the report is that Euclid must go—and so must all other "dead, useless, outmoded, or unimportant parts of mathematics." The Report declares that Euclid's ideas are useful, but they must be adapted to the mathematics needed in modern scientific and technical work and in industry, business, and the social sciences.

Desegregation Plans

AT least 18 Southern school districts plan to desegregate for the first time this fall, four by court order and 14 through voluntary programs, according to a preschool-opening resume in *Southern School News*.

Admission of Negroes to formerly all-white schools will be initiated in six districts in Virginia, four in Texas, three in Tennessee, two in North Carolina, and one each in Georgia, Florida, and Kentucky.

Georgia will have its first desegregated school below the college level this fall. Atlanta has accepted 10 Negroes to enter the 11th and 12th grades of white high schools in September. The grade-a-year plan was ordered by a federal district court.

The change to biracial schools in Atlanta will leave only Mississippi, South Carolina, and Alabama with completely segregated public schools. Reports have been made, however, that Negroes will attempt to register at public colleges in Alabama and South Carolina.

Delaware, which has operated its schools under a grade-a-year plan up through last term, has received approval of its new segregation plan which opens all grades in all schools to Negroes.

Project Talent Follow-Up

THE first stage in the follow-up of Project Talent, the national talent research program, is now under way. Questionnaires have been mailed to 90,000 former high-school students who took the tests in the project in the spring of 1960.

The questionnaires are designed to get information on the student's careers one year after graduation from high school. Follow-up questionnaires also will be sent after five years, 10 years, and 20 years.

Project Talent is financed by the Cooperative Research Program of the U.S. Office of Education and other agencies and supervised by psychologists of the University of Pittsburgh. Its purpose is to learn more about what kind of guidance and what kind of school courses are most helpful for the maximum use of talents of young people. More than 440,000 high-school students in 1,353 high schools participated in the tests in 1960.

DATES OF THE MONTH:

Sept. 29-Oct. 4, Department of Rural Education, NEA, Pittsburgh, Pa.

DATES OF THE COMING MONTHS:

Oct. 3-6, National Council on Schoolhouse Construction, Atlanta, Ga.

Oct. 7-12, Association of School Business Officials of the United States and Canada, Toronto, Ont.

Oct. 16-20, National Safety Council, Chicago, Ill.

Nov. 5-8, Adult Education Association of the U.S.A., Denver, Colo.

Nov. 5-11, American Education Week.

Nov. 22-25, National Council for the Social Studies, Chicago, Ill.

Feb. 14-17, American Association of Colleges for Teacher Education, Chicago, Ill.

Feb. 17-21, American Association of School Administrators, Atlantic City, N.J.

Feb. 24-28, National Association of Secondary-School Principals, St. Louis, Mo. •

New Educational Materials

The Torch Lighters: Tomorrow's Teachers of Reading. Mary C. Austin, *et al.* Cambridge, Mass.: Harvard University Press, 1961. Pp. xv + 191. $1.00.

Serious shortcomings in reading instruction and in training programs now preparing future teachers of reading are emphasized in this report of a study made under the direction of Mary C. Austin and financed by a grant from the Carnegie Corporation.

While acknowledging that the quality of students majoring in elementary education is higher now than ever before, the report states that these students are considerably lower in academic performance than students in secondary education or in other academic fields. The report notes the low admission standards and the paucity of screening practiced by most teacher preparation institutions. The practice teaching programs are also criticized. Attention is called to the small amount and improper timing of practice teaching in reading instruction.

The report is a result of a detailed study of elementary-education programs under which teachers of reading are being prepared and includes recommendations concerning the significant issues involved.

The Teacher in Curriculum Making. Joseph Leese, Kenneth Frasure, and Mauritz Johnson, Jr. New York: Harper & Brothers, 1961. Pp. x + 497. $5.50.

This text is a detailed presentation of methods and functions involved with the teacher's role in curriculum planning.

The content is presented in four parts: Part I deals with the curriculum and the teacher as a key factor; Part II is concerned with the foundation and broad framework of the curriculum and the personal development of the teacher; Part III focuses on individual action with specific curriculum areas; Part IV examines the teacher's role in working with others in cooperative participation in organizing the curriculum.

Focus on Change: Guide to Better Schools. J. Lloyd Trump and Dorsey Baynham. Chicago, Ill.: Rand McNally and Co., 1961. Pp. 147. $1.25.

"If the United States expects to keep up with the world around it, the nation's schools must begin to change drastically—now."

That judgment is from the Commission on the Experimental Study of the Utilization of the Staff in the Secondary School, following completion of a five-year study.

In this book, the commission presents a pattern for the school of tomorrow that evolved from and is based on the findings of the study. Many challenging evaluations and recommendations are presented. There are proposals and recommendations concerning school building architecture, curriculum, and use of teaching personnel's time that will strike some as being extreme and radical. But remembering that research and practice in education are much closer now than even a few decades ago (How old is television?), the proposals do not seem so startling.

Essentially, the content is a presentation of imaginative thinking applied to our educational resources and the changes that are possible now that would employ those resources in a more efficient and effective manner. Reports are given to show what some schools are doing today that gives support to many of the proposed changes. There are some thought-provoking recommendations for teaching schedules and methods of organizing classes presented in an attempt to show how, despite an expected continuing shortage of qualified teachers, this country can more profitably use its teaching personnel.

Guidebook for School Principals. Byron W. Hansford. New York: The Ronald Press Company, 1961. Pp. vi + 296. $5.00.

In question and answer form, this book presents a range of situations common to the principal's post and offers solutions to each problem.

The author is Colorado's Commissioner of Education and he expresses the hope that this guidebook will be a time-saver in executing administrative duties.

The 135 questions selected for discussion were derived from a compilation of over 5,000 reported in a three-year study of the duties and activities of newly appointed principals. There are six major divisions: personal and professional problems, students, staff, program, the community, and operational problems.

The questions are concerned with day-to-day situations that require decisions, and the author addresses each situation in a direct, decisive manner.

Philosophy of Education. Robert Ulich. New York: American Book Co., 1961. Pp. xiii + 399. $5.00.

This is an examination of the purposes of education. The author, a professor of philosophy of education at Harvard University, writes, "In this text I have tried to present sub-

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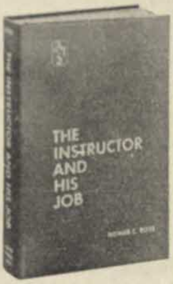

THE INSTRUCTOR AND HIS JOB

Years of experience in training top-flight instructors have gone into the development of this book. The practices and procedures detailed here have been tried and proven over a long period of application.

The text first examines the personal attributes of the good instructor and makes clear some important facts about the learning process. It presents a format for determining what to teach and how to prepare oneself for lecturing and conducting discussions.

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stantial material concerning the basic philosophic issues and aspects of education which every prospective teacher (and, indeed, every intelligent citizen in a democracy) should, sooner or later, think about."

The author has avoided using unnecessary technical jargon. A synthesis of the various schools of philosophy is presented accompanied by commentary on the contemporary educational scene. There are chapters on the liberal arts vs. scientific and practical education, the education of teachers, centralization vs. decentralization, and the cultural responsibilities of the school administrator.

OTHER MATERIALS RECEIVED:

ELEMENTARY

Teaching America's Children. William B. Ragan. New York: Holt, Rinehart and Winston, 1961. Pp. viii + 344.

Elementary Education and the Academically Talented Pupil. David C. Sanders. Washington, D.C.: National Education Association, 1961. Pp. 96. $1.00.

A Practical Guide to Individualized Reading. Marcella K. Draper, Louise H. Schwietert and May Lazar. Educational Research Publication No. 40, 1960, New York City Board of Education. Pp. xi + 158.

Inclement Weather Activities. Jerry G. Edwards. New York: Arco Publishing Company, Inc., 1961. Pp. 82. $1.50.

Radio Plays for Young People to Act. Rose Schneideman. New York: E. P. Dutton & Company, Inc., 1961. Pp. 218. $3.95.

Iroquois. Irene Estep. **Navaho Land, Yesterday and Today.** Solveig Paulson Russell. **Cherokees.** Marion Israel. Chicago: Melmont Publishers, Inc., 1961. Pp. 32 each. $1.88 each.

Know Your Presidents and Their Wives. George Ross. Chicago: Rand McNally & Company, 1961. Pp. 72. $2.95.

SECONDARY

Teaching Adolescents in Secondary Schools. (Second Edition.) Harry N. Rivlin. New York: Appleton-Century-Crofts, Inc., 1961. Pp. xiv + 479. $5.50.

Science for the Space Age. Victor Smith and B. Barnarr Vance. **Chemistry for the Space Age.** Dan Q. Posin. **Physics for the Space Age.** Richard W. Shulz and Robert T. Lageman. Chicago: J. P. Lippincott Company, 1961. Pp. viii + 616; xiii +680; and xiii + 465. $4.96, $5.40, and $5.60, respectively.

Principles of Secondary Education. (Fourth Edition). Rudyard K. Bent and Henry H. Kronenberg. New York: McGraw-Hill Book Company, 1961. Pp. ix + 438. $6.75.

Science Teaching in the Secondary School. Nathan S. Washton. New York: Harper & Brothers, 1961. Pp. xviii + 328. $5.00.

Algebra, First Course and **Algebra, Second Course.** (Second Edition.) John R. Mayor and Marie S. Wilcox. Englewood Cliffs, N.J.: Prentice Hall, Inc., 1961. Pp. 440 and 501. $4.24 and $4.36, respectively.

COLLEGE

Student Personnel Services in Colleges and Universities. E. G. Williamson. New York: McGraw-Hill Book Company, Inc., 1961. Pp. xv + 474. $7.50.

Compensation on the Campus. Edited by J. F. Wellemeyer, Jr. Washington, D.C.: Association for Higher Education, NEA, 1961. Pp. viii + 526. $3.00. Case studies of college and university faculty compensation practices.

Essentials of Effective Writing and **Practice for Effective Writing.** Vincent F. Hoper and Cedric Gale. Great Neck, N.Y.: Barron's Educational Series, Inc., 1961. Pp. 224 and 192. $1.50 each. A text and practice book for college freshman composition courses.

GUIDANCE

Careers and Opportunities in Physics. (Revised Edition.) Philip Pollack. New York: E. P. Dutton & Co., Inc., 1961. Pp. 159. $3.75.

Careers in Science, Mathematics, and Engineering: A Selected Bibliography. A. Neal Shedd, Anita K. Scott, and James M. McCullough. U.S. Office of Education Bulletin No. 8, 1961. Pp. v + 39. Available from U.S. Government Printing Office, Washington 25, D.C. $.25.

GENERAL

The Inquiring Mind: A Study of the Adult Who Continues to Learn. Cyril O. Houle. Madison, Wis.: The University of Wisconsin Press, 1961. Pp. xi + 87. $5.00, cloth; $1.50, paper.

Dynamics of Child Development. Horace B. English. New York: Holt, Rinehart and Winston, Inc., 1961. Pp. xiii + 461. $5.75.

Human Psychological Development. Elizabeth Lee Vincent and Phyllis C. Martin. New York: The Ronald Press Company, 1961. Pp. v + 522. $6.50.

New Approaches to the Education of the Gifted. Cyril William Woolcock. Morristown, N.J.: Silver Burdett Company, 1961. Pp. 112. $2.00.

Planning Schools for New Media. Amo DeBernardis, *et al.* Portland, Ore.: Portland State College Division of Education, 1961. Pp. 72. $1.00. Prepared in cooperation with the U.S. Office of Education.

The Gifted: Educational Resources. Boston, Mass.: Port Sargent Publisher, 1961. Pp. 285. $4.00.

The New Nation, 1800-1845. Charles M. Wiltse. **The Stakes of Power, 1845-1877.** Roy F. Nichols. New York: Hill and Wang, Inc., 1961. Pp. ix + 237 and x + 246. $4.50 each. The first two of a six-volume history on The Making of America.

Public School Administration. (Second Edition.) Calvin Grieder, Truman M. Pierce, and William Everett Rosenstengel. New York: The Ronald Press Company, 1961. Pp. viii + 642. $8.00.

School Plant Management; Administering the Custodial Program. R. N. Finchum. U.S. Office of Education Bulletin 4, 1961. Pp. 105. Available from U.S. Government Printing Office, Washington 25, D.C. $.40.

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RESEARCH

Volume XXVII *January 1962* Number 5

THE EDUCATION DIGEST

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Editorial and Circulation Office: 416 Longshore Drive, Ann Arbor, Michigan.

Advertising Sales Offices:
- Ann Arbor, Mich.—416 Longshore Drive, telephone NO 8-7205.
- Chicago, Ill.—Didier & Broderick, Inc., 5809 Lincoln Ave., telephone LO 1-5284.
- New York 17, N.Y.—Macintyre-Simpson & Woods, 101 Park Ave., telephone LE 2-0020.
- Los Angeles 5, Calif.—The Jess M. Laughlin Company, 711 S. Vermont Ave., telephone DU 3-7697.

Published monthly, September through May, by Prakken Publications, Inc., 416 Longshore Drive, Ann Arbor, Michigan. The annual index is included in the May issue. The contents of THE EDUCATION DIGEST are listed in the Education Index.

Subscription Rates: $5.00 a year; 2 years, $9.00; 3 years, $12.00; foreign, $5.50 a year. Single copies, 60c.

Second-class mail privileges authorized at Ann Arbor, Michigan, and additional entry authorized at Oxford, Ind. Printed in the United States of America.

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THE EDUCATION DIGEST

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Volume XXVII JANUARY 1962 Number 5

Some Major Changes Need to Be Made

The Trouble with Excellence

LOUIS T. BENEZET

In Saturday Review

Louis T. Benezet is President of Colorado College, Colorado Springs. Reported from Educational Supplement, Saturday Review, *XLIV (October 21, 1961), 44–45, 63–64.*

THUS far in the 1960's the watchword for education is Excellence. The word has gained great power. It is being used as a last word in all kinds of educational discussion, a true sentence-stopper. Unlike its counterpart of the 1920's, Excellence has escaped nearly all controversy. Progressive education was controversial from the start and is still a sure means to an argument among otherwise peaceable educators.

It is good to have watchwords like Excellence run up the masts of our schools and colleges. If it is our answer to the post-sputnik educational depression, we could do worse. Beyond doubt, the educational phenomenon of the past three years is that teachers are working students harder and most students are responding. Yet if sputnik and our answering cry, Excellence, have started us running, we must also ask whether we are all running in the same direction. Evidence indicates we are not.

Some have used Excellence as the call for a series of countermarches in education; others are using it to back their own opinions about whom, what, and how to teach. In brief, Excellence is in danger of being manhandled, like the word Democracy. It might even end up as a property of the reactionaries, such as befell the word Americanism in some circles.

Educators use the new watchword differently, according to whether administrators or teachers are speaking. The administrator's use, as displayed in college convocations and letters by university presidents to their constituencies, verges on the opportune. Excellence has become a heaven-sent term to explain in one breath the reason for a tuition hike. The trouble is that the precise steps by which the institution is going to achieve excellence through the tuition hike can be but vaguely discerned.

Of all the administrator's uses of Excellence, the most questionable is the statement "We are out for excellence in all things," when employed to rationalize a big build-up in the university's football program. There is Excellence in education and Excellence in hired skill, and seldom the twain shall meet.

The teacher's use of Excellence to define what education is aiming to do may be more important than administrators' efforts to sloganize. In its effect on interest in studies, Excellence seems to have done something merely by being spoken. In contrast to the 1920's, the period of shallowest attitudes toward higher education, contemporary prospects for college education are very good insofar as student seriousness is concerned. Parents have joined in so fervently that college officers are besieged by inquiries concerning the pre-enrolment of sons and daughters not yet in their teens. Once enrolled, today's college students are showing an unsuspected tolerance for heavy assignments. The university library is filling up on Saturday afternoons about as fast as the student side of the stadium is emptying.

Have we then arrived at Excellence merely by demanding it? It depends on how closely we identify Excellence with quantity of study. On this, faculty members themselves are not certain. All are delighted at the student response; yet the more thoughtful are asking what it will produce in quality of thinking. Are we producing what has been characterized as a dutiful generation? How are we doing on student originality?

One of the most debated areas for Excellence is college admissions, and the search for the "excellent" student prospect. We have more prospects to choose from now. Coupled with the post-sputnik cry for Excellence, the enrolment push is pressing on college admission officers to a degree known only during the G.I. boom of 1946-48. The difference is that it was then a pressure on all colleges, whereas now it is a pressure on only the best known and highly selective ones. Thus Excellence in college is being identified with the fine-screening of the best applicants to the most sought-after institutions.

The impact of the admissions frenzy on the concept of Excellence in American education is disquieting. If Excellence is to be interpreted to the public as a high College Board aptitude score, a pattern of so many courses in prescribed subjects, an experience in a private school that specializes in this preparation, and admission by one of some 25 "prestige" colleges, then Excellence must assume class overtones. The fact that most educators do not so limit Excellence is less potent than that Suburbia is convinced it is so. It is disturbing to think that American Excellence might be preconditional on passing the right test and the right subjects in the right school and gaining entrance in the right college. If that impression is making headway—and I believe it is—then we have a long way to go in our search for an Excellence that will help America sell her way of life to the less privileged millions in Latin America, Africa, and Asia.

Similarly disturbing is a parallel growth in the idea that Excellence in education means no more than hard work and lots of it. There is nothing wrong with hard work. There is, however, something wrong with a naive acceptance that quantity of work, alone and unaided, will produce the excellent student or the excellent man.

UNFULFILLMENT FEELING

So we are faced with a feeling of unfulfillment in the meaning of excellent. A large segment of higher education has taken advantage of its national boom to define Excellence in the student as obedience to the call for stronger conventional preparation and more diligent study. We need to go further. Not much progress has been seen yet concerning an Excellence as it might refer to how we can produce people who show a more sympathetic awareness of society's demands on themselves, a keener interest in tackling our hardest problems, more careful and impartial reasoning on public issues, creative imagination, concern over national stagnation and cheapened ethics, or deeper thinking about the implications of the scientific revolution.

The recent report of the President's Commission on National Goals leaves no uncertainty about the breadth of the task ahead of us. Our national life has faltered. If we are to regain our stride, whatever the colleges can do will need to be joined by home, church, government, and private enterprise in the myriad varieties of informal education all these comprise. It is not the job of college education alone, but college education should accept its share.

If formal education, higher education in particular, is to join the commitment to national goals, some major changes will need to be made. John Gardner, in his supporting essay for the Commission on National Goals, sums it up:

"In some measure it is a problem of organizing ourselves to achieve our objectives. The somewhat blind evolutionary process of the educational past is no longer suited to the needs of our fast-changing society."

The objectives, as Mr. Gardner implies, exist. Our trouble is that we have allowed the college effort to fall short: that is, to serve shorter-range, more specialized objectives in turning out graduates to be professionally employable and socially acceptable. To go beyond these bread-and-butter attainments will require a new order of determination in leadership.

First, we must persuade college professors that educational aims more personal than competence in standard courses are susceptible to action. Nearly every college of liberal arts commits itself to such aims for "broad development of the student," including even the improvement of his character. But on nine-tenths of the campuses, goals like these, even when written by the faculty themselves, are dismissed as promotional rhetoric, or as good things bound to happen through exposure to college teaching. Faculties suffer allergies to studies aimed at deliberately finding out what actually is being achieved in students concerning the broader goals for education. Such things can be studied, but the techniques will have to be smuggled in until they become better accepted.

Second, the faculty should be persuaded to place its direct teaching attention more on the first two years of college than the last two. These are the years for either winning or losing the enthusiasm of the student for values outside his previous experience and often in contrast to his early setting. He needs to discover a taste for challenging his own assumptions. Classes should be small; the most experienced teachers should sit with the freshmen; subject matter should be flexibly and ingeniously used; seminars and conferences ought to be frequent in these first two years.

As it is now, most colleges, especially those in the great universities, concentrate among their freshmen and sophomores the largest classes, the most cut-and-dried materials and methods, and the most junior faculty. Small wonder that nearly 40 percent of all college students, on a national average, have left or transferred by the end of the sophomore year. We must do better to win the entering student, and academic toughness alone will not do it.

END THE COLD WAR

Third, we should try harder to end the cold war between professors and student personnel officers. It remains a fact that on all but a few campuses the professional personnel worker is viewed by the academic faculty with either hostility or condescension. Professors seem convinced that professional guidance is a form of alchemy. The occasional professor with an impulse to use personnel information is liable to be condemned by his colleagues as guilty by association, and he soon abandons his notion. In 40 years we have made little progress toward solving the trouble. It is a real block to achieving Excellence in the student as a person.

Fourth, a sustained effort should be made to throw out false and superficial inducements to learning. In one way or another, most of these refer to our obsession with grades. A few colleges that have ended the grading system have shown what can be done. It *is* possible to interest students in intrinsic learning, once we rid ourselves of the ancient hobby of making book on each performance. As a system for evaluating attainment of broad educational aims, grading remains a failure. Few teachers have any systematic idea of how to grade fairly. Grading is also the chief villain behind the quiet scandal of pervasive college cheating.

Fifth, colleges should move toward real learning among students and to real teaching among professors. For the former, plenty of rewards will come to mind once the stranglehold of grades has been broken. For the rewarding of teaching, we must solve not only what Jacques Barzun calls the Ph.D. racket but also, perhaps even more important, the publishing racket. The layer of scholarly publications is spreading over the landscape of higher education like a new Glacial Age. I would propose, as a start, cutting down 30 percent of scholarly published material, by charging committees of peers with the power to screen out the less genuine contributions to knowledge. With time saved from putting out that 30 percent, professors could rediscover the joys of creative teaching. Administrators could then renew their courage properly to recognize such teaching. This suggestion is made in a faith that the remaining 70 percent of scholarly material will be ample to advance man's knowledge and light the windows of civilization.

Last, the college community needs to look at itself as an example of national goals at work. It is not comfortable to think of faculty and students whose idealism for learning is damaged by compromises observed around them in their institutional setting. For just one example, we may cite the inability of the American university to declare its stand on education *vs.* public entertainment.

The excuse for professionalized teams and athletic spectacles is that they pay for the nonpaying sports and the physical-education program. Such claims could stand an audit. When the total costs in time, materials, public-relations offices, and human preoccupation have been added to the outright dollar costs, and when this total has been placed against what might be done by a like preoccupation with the broader education of students, few if any universities will be able to speak for the big-time sports program.

The fact that most of our universities still struggle to justify million-dollar athletic programs has meant more to the impairment of Excellence in education than any one has so far measured. Athletics are simply one conspicuous illustration of changes needing to be faced if Excellence in education is to become more than a limited academic symbol or an empty boast.

The task of creating genuine Excellence in the development of American citizens through education may still not be too great for us. If we can begin by agreeing what the task truly entails, we may set our course toward an education that in time will become Excellence indeed. •

Changing Patterns in State Requirements

Teacher Certification

DONALD L. BARNES

and CHARLES D. SHIPMAN

In The Clearing House

FEW aspects of education change as rapidly and as unpredictably as state teacher-certification requirements. The multifarious forces seeking to influence certification spring from pressure groups representing many varied economic and social dimensions of American life. The vitality and influence of these forces seem to fluctuate with public sensitivity to real or imagined local, state, and national needs. Not infrequently individuals of strong persuasion play important roles in shaping final outcomes within states.

Attempting to construct a reasonably complete and accurate picture of present requirements and future expectations, chief state school officers throughout the United States were asked for judgments and interpretations relative to certification within their respective states. They were asked to compare present requirements in general education, professional education, and areas of certification with those of 1955. They were also asked to identify present trends and speculate regarding future developments in certification standards.

Because of the great variety of standard and emergency certificates offered, and variations in requirements for certification, comparisons among states are not easily constructed.

Continuing the trend from the immediate postwar years, about half the states report increased total requirements for certification during the past five years. Fourteen states have increased general education (liberal arts) requirements, 23 states have raised the course-hour requirements for majors in subject-matter areas, and five states have increased professional education requirements. At least 9 states anticipate increased requirements in areas of specialization.

Professional education requirements for elementary majors vary from 16 semester hours in Alaska, North Dakota, and Illinois to 36

Donald L. Barnes and Charles D. Shipman are faculty members at Ball State Teachers College, Muncie, Indiana. Reported from The Clearing House, *XXXVI (November 1961), 158–60.*

hours in New York State. The average for elementary certification is 23.5 semester hours. Professional education requirements for secondary majors range from 12 semester hours in Maine and Massachusetts to 27 hours in the state of Washington. The average is 19.0. Student teaching requirements, included in the above totals, vary from 0 semester hours in Maine to 10 hours in Washington. Nationally, student teaching requirements average 5.14 semester hours.

General-education requirements, which are not specified in most states, continue to receive less attention than areas of specialization. Among the 30 states specifying general-education requirements, the means are 45.3 semester hours for elementary majors and 47.2 semester hours for secondary majors.

SPECIALIZATION REQUIREMENTS

Many states have established minimum requirements for the various areas of specialization. In general, the applied arts and sciences have higher requirements than the more traditional high-school subject areas.

Agriculture is at the head of the list with a mean of 38 hours, followed by music, 34 hours; home economics, 33.7 hours; commerce, 31 hours; physical education, 30.4 hours; art, 30.4 hours; and industrial arts, 30.2 hours. Social science requirements average 26.4 hours, science, 24.8 hours; English, 24.4 hours; speech, 22.8 hours; library science, 21.8 hours; foreign language, 21.5 hours; mathematics, 19.6 hours; and journalism, 19 hours.

Much confusion has resulted from the ambivalence of many states regarding areas of certification. Twenty-one states report that they have increased the number of areas of possible certification within the last five years; 10 states have decreased the number of certificates offered. Nine states anticipate offering fewer certificates in the near future; five states plan to add one or more new certificates. Evidence indicates a gradual, but awkward, movement toward less specificity in certification.

A number of factors are influencing certification on a nationwide basis. With increasing population mobility has come a growing interest in certification reciprocity. An 11-state reciprocity compact was established among the six New England states and New York, New Jersey, Delaware, Maryland, and Pennsylvania. A similar arrangement is in effect among the states of Iowa, Nebraska, Wisconsin, Illinois, Kansas, and Missouri. States with fast-increasing populations are especially eager to utilize teaching talent from other states. A number of organizations, like the American Association of School Administrators, are also establishing and enforcing standards in special areas of certification.

Probably the most apparent change has occurred in states which are establishing certification on an "approved program" basis. Under this plan, institutional programs are studied and rejected or approved. Graduates from approved institutions receive automatic certification. At least 11 states report significant progress in this direction. The power to accredit institutions rests presently in most state education departments.

Most chief state school officers and institutions preparing teachers recognize that certification requirements simply define the minimums within and beyond which excellence may be achieved. Few would suggest that the value placed on certificates does not ultimately rest on the quality of teacher-education programs. Numerous professional educational organizations have been increasingly active in raising standards of teacher certification. Much of our hope for the future rests on the wisdom and effectiveness of these organizations in encouraging stronger programs in the institutions preparing teachers and the public schools which receive their graduates. Firmness and flexibility must be combined with a growing sensitivity to national needs if we are to meet the challenge of the sixties. •

"Methods" and Training

- Maryland's new standards for teachers put less emphasis on "methods" courses, requiring only 26 hours for elementary teachers (formerly it was 32) and 18 hours for high-school teachers. In addition, the number of certificates issued has been reduced from 30 to three: provisional, standard, and advanced. The last is issued to those with 10 years of experience and a fifth year of college preparation.

- A proposal that teachers at every level should have a full 12-month leave every four years has been made by John Rutherford Everett, chancellor of New York City's municipal colleges. The sabbatical should be spent attending full-time training programs to brush up on the latest developments in education, he believes. He states that if 25 percent of the teaching force is enrolled in training programs at all times, teachers will be adequately prepared to make use of new techniques and new knowledge.

- Joan, visiting her schoolteacher friend, sat in the rear of the second-grade classroom. A little boy sitting next to her asked why she wasn't a teacher. She replied that she didn't know how to teach. Unimpressed, the boy replied, "Oh, you don't need to know much—just how to read and write."—Robert Roberts in *The Christian Science Monitor*.

What Does History Suggest?

Teaching Machines in Perspective

ARTHUR I. GATES

In The Elementary School Journal

WE are witnessing a rush to stake out claims for teaching machines that is reminiscent of the dash for land grants in the Midwest a century ago.

It is misleading to suggest that teaching machines are all recent inventions, that the use of mechanical devices in schools was unheard of until five years ago. Mechanical devices of many sorts have been proposed and have been in use in American schools for more than a half century.

In this article I should like to make some general comments on teaching machines, starting with a brief report on certain teaching machines designed to improve eye movements and perceptual patterns in reading.

The Psychology of Reading, published in 1906 by the Columbia University Press, contained a suggestion that launched efforts in many laboratories to invent devices to provide rapid and controlled exposure of material. A number of these mechanisms were developed, ranging from inexpensive manual devices for exposing printed words or phrases to large and expensive mechanically operated tachistoscopes. Only a few of the inexpensive ones were commercially available before 1930, but many of the more complex types were constructed and tried out in laboratories and even in a few schools.

The first elaborate pacing machine for reading to be manufactured for general use was the Metron-O-Scope, designed by Carl C. and Earl A. Taylor, and marketed about 1930. Since then a number of similar teaching machines have appeared and have been widely used in teaching programs in laboratories, clinics, schools, and instructional programs in the armed services.

The chief objection to these devices is that they do expensively what can probably be done as well, or better, by merely opening the book and pushing a card down the page at a speed to suit the reader's ability and purpose. In my judg-

Arthur I. Gates is presently with the Institute of Language Arts, Columbia University, New York. Reported from The Elementary School Journal, *LXII (October 1961), 1–13.*

ment, a piece of cardboard serves the major objectives better than the most expensive gadget.

Indeed, I believe that a clever teacher could improve the reading of representative children and adults more by using material to be found in her classroom than by using any pacing instrument with which I am familiar. These views seem to be in harmony with the results of studies reported recently.

The pacing machines in reading were marketed by certain persons and investigated several years later by other persons. Unfortunately, valid evidence of the sort needed to establish the advantages of teaching devices of this kind is difficult to secure because all such educational materials and methods do not operate alone but along with other powerful factors, such as the enthusiasm and the skill of the teacher in using the various procedures being compared, the appeal of the novelty of the mechanism, and the operation of the procedure as a component of various complex programs.

It cannot be assumed that any mechanism or method is desirable merely because pupils learn by means of it. Children have shown ability to learn despite some of the most discouraging conditions, the most prohibiting materials, and the most misleading methods that human ingenuity could conceive.

It is unhappily true that up to now education has not been well equipped to investigate promptly and thoroughly such devices as pacing machines. This kind of machine, like many of the new teaching machines, was suggested and recommended by a number of psychologists. Teachers tried it and many reported, "It works."

Of course, children taught by these machines did learn. The investigations merely show that the children learned no better, indeed usually less well, with these machines than with simpler, more convenient, and less expensive materials. To justify the higher costs and the inconvenience entailed, machines ought to achieve appreciably better results.

TESTED LATE

The Cason study, the first valid test of the pacing machine, was made 40 years after the idea embodied in the device was suggested and more than a decade after the Metron-O-Scope was placed on the market. The study was financed almost entirely by a lone graduate student. It is to be hoped that history will not repeat itself with the teaching machines that are appearing today.

The history of pacing apparatus for reading reveals how subtly a teaching machine can deceive us and is a warning to be alert in appraising new devices. The disappointing record, however, does not justify a conviction that all other mechanical teaching devices will prove to be similarly disappointing. Each machine, at least each type, will need to be investigated by itself.

One should not conclude from these remarks that pacing machines are valueless or that they do not embody sound learning principles. Such conclusions would be unjustified.

The trouble was not that these machines did not teach; it was merely that more convenient, more available, and less expensive devices were just as good or better. The real issue is whether mechanical teaching devices can be developed that will be superior to other teaching procedures in both effectiveness and costs.

The major principles operating in most of these devices are sound and important, but not new, except perhaps in refinement of detail. The principles were in the minds of educators and others who, between 1915 and 1930, were working to develop remedial reading programs, workbook materials, individualized practice books and procedures (such as the Winnetka program), tutorial plans, etc.

The best programs emphasized selfinstruction, with materials programmed to make what was to be learned as clear as possible; to present learning progressively in minute and easy steps; to eliminate the practice of errors; to reward (reinforce) the desired response; to promote growth in insight, in the ability to generalize, and in particular skills or items of information; and to make the learner's progress apparent at all times.

These are the good old learning principles that various persons have sought for decades to put into effect in many ways. It is fortunate that new, vigorous efforts are being made to embody these principles in new mechanical devices. The possibilities of developing far better mechanical devices are so much greater today than 25 years ago that truly better learning may be possible. I heartily approve of new explorations in these areas; I only hope that mistakes of the past will not be repeated.

The pity is not that considerable money and expert time are being poured into developing mechanical devices; the pity is that equally great efforts are not being devoted to the possibilities of other media and other approaches, including older ones. At this stage, it should not be assumed that the principles of learning, which the machines are alleged to put into effect so well, can be put to work only by mechanical devices. There is no justification whatever for this discouraging assumption. On the contrary, for certain purposes other media, such as printed workbooks, new types of textbooks, and other printed material, have intrinsic advantages over the elaborate machines.

The reading pacing machine embodies one feature common to nearly all other devices I have heard about. It represents an artificial learning situation that is not likely to be available outside the school. It also embodies some distortion of the process and the situation encountered elsewhere.

To illustrate, reading a text, exposed in thought units in Metron-O-Scope, is not exactly the same activity as reading the same text on a motionless page. Some persons have difficulty transferring improvement achieved in one activity to the other. However, because life is one long process of transferring learnings from one situation to others, this objection should not be given too much weight. But investigators and users should keep in mind the fact that learning machines tend to distort the normal pattern of response, usually to a small degree but occasionally greatly.

In general, it is probably easier to make the transfer from printed materials to learning situations in everyday life than from complicated machine situations. Moreover, learning machines in general tend to be more bulky and more expensive than books and magazines. Learning machines are more likely to balk or break down, and are more subject to other limitations of complicated apparatus.

A reasonable question might be: If selflearning materials like those developed in the 1920's were as promising as suggested, why did they fail to catch on? As one involved in some of the enterprises at that time, I offer an explanation.

The outfits, including Pressey's "test and teach" machines, were not in keeping with the spirit of the times. Many educators thought the devices too narrow and too formal. Some educators still think so. The main obstacle, however, was the conviction of many superintendents, publishers, and members of boards of education that the materials and the procedures were too expensive.

But today is another day. Conditions now seem favorable, not only for teaching machines, but also for teaching by print and picture. Keeping in mind the favorable conditions existing today, I believe that teaching machines in general have many desirable features, even if they are not so free from limitations as some enthusiasts imply. However, I believe that vigorous efforts should be made to explore the possibilities of developing new forms of printed materials that will teach effectively without elaborate and expensive machinery. Finally, the 60-year history of machines for pacing reading does suggest, clearly and emphatically, that educators should demand that critical research precede rather than follow acceptance, for general use, of any teaching machine. •

DON'T worry about losing your job to a teaching machine. Just learn to repair the balky things when they break down. And, if you're really smart, you'll go on and get your mechanic's license. Everybody knows that mechanics draw higher pay than teachers.—*Mississippi Educational Advance.*

How It Can Affect Educational Productivity

Dangers of Too Much Administration

GALE JENSEN

In The University of Michigan School of Education Bulletin

FOR many years educators have reasoned and verbally asserted that the expansion and improvement of formal education requires at least a proportionate increase in educational personnel, coupled with an improvement in their quality. In short, it is believed that to accomplish a bigger and better job of education, an increasingly favorable ratio of personnel to students is required.

Often, however, increases in the number of personnel do not lead to an increase in the productivity of an educational system. In fact, one sometimes observes the reverse to happen.

I would like to suggest that the explanation for this anomaly of "increased personnel resulting in decreased productivity" is, at least for the present, more likely to lie in the kind of organizational structure in which education personnel must work, rather than in the reasoning of educators about the amounts and kinds of resources needed for education expansion and improvement. I believe that increases in the number and kinds of administrators in educational organizations *may* serve to inhibit the performance of personnel, i.e., reduce their productivity.

With the increase in size of educational organizations there is a strong tendency in the United States to proliferate the number, kinds, and levels of administrators. This phenomenon manifests itself in the form of job titles such as assistant principal; assistant to the principal; assistant supervisor; assistant and associate superintendent, with assistants to each of these; assistant and associate directors and deans; assistants to the president, dean, and director; and a number of first, second, and third vice-presidents—*ad infinitum* up, and down the administrative ladder.

Some observers of this breeding process of administrative roles say that it is a reflection of Americans' need to produce evidence of their personal success; that enterprising, ambitious Americans view the acquisition of job titles as symbolic of their social and economic success. They, therefore, work hard

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to have created the number, kinds, and levels of administrative roles needed to take care of their personal needs.

Other observers claim that the multiplication of administrative roles is simply a consequence of increases in size of organization; that, with increases in size, central or chief administrators become overburdened and inaccessible to personnel, unless they are given assistance and/or relieved of some of their administrative functions.

Whatever may be the real reason for increases in numbers, kinds, and levels of administrators, the point I wish to make is that increases and changes in the nature of administrative roles produces a dislocation of responsibility or authority for decision making. It is this change in decision-making authority that is related to reductions in the productivity of educational personnel.

CREATING CONFUSION

For effective and efficient educational organizations, decisions about planning, organizing, and implementing programs have to be made by those with roles which are involved in, or operationally close to, actual planning and implementation. It is these roles that are easily affected when new administrators are created or old ones are given new titles. The persons filling these roles wonder whether there are really any changes in decision-making authority in the areas of activity vital to the performance of their jobs.

When administrative titles are changed simply for taking care of personal needs for advancement, a great deal of confusion arises because of the uncertainty of others concerning whether this does or does not signify a change in allocation of authority for decision making. If the persons receiving the "promotions" act as though they are different and the persons who work with them continue to act as though they are not different, not only confusion but conflict results.

In brief, the creation of new or the rebirth of old administrators can produce conflict and confusion affecting the performance of those roles which directly determine the productivity of the educational system. The greater the increase in numbers of administrators, the greater becomes the chance of confusion about which set of roles is responsible for what kind of decision making.

Another way in which productivity of the educational system is reduced is a consequence of the increasingly elaborate "vertical" and "horizontal" hierarchies or networks of administrative roles that result from increases of these roles.

"RED TAPE" DELAYS

The development of these elaborate administrative hierarchies often result in the establishment of a decision-making process in which administrators who know nothing about programing and implementation have a part. Such administrators either gather information or hold approval needed by, and are therefore constantly sought by, those in operational roles. They are usually made a part of the decision-making process because of other administrators' concern with problems of security. When they have some responsibility for taking part in decision making regarding planning and implementing programs, costly delays in planning and implementation are likely to happen.

Such delays are usually perceived as "red tape" delays caused by security-minded administrators who, knowing nothing about program problems, need to move slowly to feel safe. "You have to see Mr. X to see Mr. Y, and Mr. Y simply collects information needed by Mr. Z, who holds the final approval but who doesn't know anything about operational or program problems." Personnel close to the operating programs of an educational system can be easily frustrated by this administrative hierarchy and give up in disgust. To these personnel, the more administrators the more time has to be spent away from work "clearing" things with administrators.

JURISDICTIONAL DISPUTES

Elaborate administrative hierarchies also cause delays in decision making because of jurisdictional disputes that arise between administrators. The more of these roles there are, the greater the chance that these disputes will occur. And when these disputes do develop between administrators, operational roles are confronted with more than "slow downs" in decision making; decisions related to the jurisdictional dispute simply can't be made until the dispute is resolved. For operational personnel to force a decision is to risk setting off a "hot" civil war.

In summary, increases in the number of administrators in educational systems are likely to reduce the productivity of educational personnel by creating confusion and conflict about the responsibility of different roles for decision-making, and by causing costly delays in decision making due to jurisdictional disputes and time spent on "security clearances."

Generally speaking, increases in the number of administrative roles and changes in title simply for purposes of meeting the personal needs of personnel should be avoided. When an extension of administrative responsibility and function is imperative for the expansion and improvement of an educational system, serious thought should be given to an allocation pattern which makes such responsibility and function an integral part of the network of roles directly concerned with the operating program of the system. In this way, decision making becomes meaningful to personnel who directly determine the productivity of the system. It also prevents an overemphasis on security problems and thus eliminates much of the delay and disruption that often occurs in decision making. •

Would Larger Turnouts Help?

A Study of Voter Turnout

RICHARD F. CARTER and WILLIAM G. SAVARD

In Influence of Voter Turnout on School Bond and Tax Elections

SCHOOL financial elections are acknowledged to produce low voter turnouts. Is this good or bad for the schools, apart from the democratic ideal? Would increased voter turnout tend to help? Is there latent support for administrative policy that could be encouraged to the surface by an all-out campaign?

Answers to these and other pertinent questions would be of real value to school administrators and school boards. An attempt to provide answers to some of the questions was part of a research project supported by the U.S. Office of Education's Cooperative Research Branch. The project was conducted by the School of Education and the Institute for Communication Research of Stanford University.

A study was made of voter turnout at bond and tax elections held by 1,054 selected school districts during the years 1948 and 1959. The extent of turnout, the effect of turnout on outcome, and the sources of turnout were examined. The findings were:

The average turnout for a school financial election during the years was 36.3 percent of the eligible voters in a district, but the variation about this mean was extremely high, the standard deviation being 26.9 percent. Turnout did not vary much from year to year, except that in large districts there was a slightly greater turnout in even-numbered years. The turnout, however, varied greatly among census divisions, and within census division according to district size.

The study showed that turnout was greater at elections where issues were defeated (in both bond and tax elections) in all district sizes. Turnout was greater in small districts than in medium-sized districts, and it was greater in medium-sized than in large districts.

Richard F. Carter and William G. Savard are members of the staff of Stanford University, Palo Alto, California. Reported from Influence of Voter Turnout on School Bond and Tax Elections, *Cooperative Research Monograph No. 5, U.S. Office of Education (OE–222012), 1961, 20–22.*

Turnout also was greater for bond elections in small districts and for tax elections in large districts. At bond elections in large and medium sized districts, it was greater when the amount of the bond issue was in the upper quartile.

In addition, the turnout was greater in districts requiring a three-fifths favorable vote rather than a simple majority or a two-thirds vote, and it was greater in all district sizes where local sources of operating funds exceeded outside sources of funds.

OTHER CASES

Other cases in which the turnout was greater included:

In districts serving both elementary and secondary grade levels, except for large districts serving secondary grades only.

In all districts where school board membership was less than six.

In medium-sized and small districts where the term of office of school board members was less than five years.

In large districts where the board members were elected at large from the district; in medium and small districts where they were elected from wards.

In large and small districts where the time needed to change a majority of the school board was one or two years.

In small districts where school boards were more responsive to the public; in large districts where boards were less responsive.

Turnout, it is shown, is low at most school financial elections. The inescapable conclusion is that interest is low and the eligible voter does not feel that it is worthwhile to vote. He feels that his interest is of no concern to the school leadership, that his voice is not heard when he does speak, or that the issues as presented are too complex to understand.

Turnout, however, varies to a great degree. High turnout does occur. Undoubtedly, an investigation of the relative number of parents with school-age children would show that high turnout is to be expected in communities with a greater number of such parents. A controversial issue is another variable which may account for a high voter turnout. These elections, however, represent only a few cases. Usually turnout is low and affected by unspectacular causes.

An administrator desiring to relate his local turnout record to an average expected turnout would have to exercise caution. As the findings show, a lower level of turnout is to be expected in large districts. Similarly, there are wide variations in turnout from one census division to another.

The inference that a groundswell of public interest has risen in recent years is not borne out by the evidence. There is, however, some indication that the *need* for greater interest has increased, and the concern of a relatively few leaders may have been projected into a sanguine inference of higher interest.

Administrators viewing these results might well be dismayed by the prospect of greater voter interest, since that seems to lead to more difficulty at the polls. That is, the issues which failed were those which drew larger voter turnout. This is not the whole answer, of course. The inference to be drawn is that increased turnout is potentially dangerous if no selectivity is to be found among the new increment of votes. One way such a selectivity can be exercised is to wage a campaign among voters known to be favorably disposed. But it is equally possible that the selectivity occurs among voters who have exposed themselves to the issues, and who understand the situation.

The question of district size needs consideration. Turnout not only falls off in large districts but appears to increase *only* when the school board is characteristically less responsive to the public. This could be construed as an argument for social engineering in large districts. However, it is possible that the board of control in a large district is still responsive to the *needs* of the public when it assumes leadership even though it may be farther removed from the direct mandate of the public. But, to be responsive to public interest, new avenues of communication are necessary to replace the greater opportunity for personal contact that characterizes the responsive board in small districts.

•

Of Things Financial

- When you read that inflation is making your money worth less, it's no relief to reach into your pocket and discover that you have nothing to worry about.—From *Midland Schools.*
- Anybody who gets more for his money than he used to is probably weighing himself.—*Franklin P. Jones.*
- If a man's after money, he's money mad; if he keeps it, he's a capitalist; if he spends it, he's a playboy; if he doesn't get it, he's a ne'er do well; if he doesn't try to get it, he lacks ambition; if he gets it without working for it, he's a parasite; and if he accumulates it after a lifetime of hard work, people call him a fool who never got anything out of life.—From *Digest* (Australia).
- In all probability, the highest taxes we must pay are not ad valorem, income, excise, or sales taxes. The highest tax we must pay is the "ignorance tax." I would rather be taxed for the education of the boy than be taxed for the ignorance of the man.—*Charles F. Carroll,* North Carolina state superintendent of public instruction.

Recent Developments in the

Role of the Supervisor

GORDON N. MACKENZIE

In Educational Leadership

THE school supervisor has not been left undisturbed in this age of unrest. Forces are at work reshaping supervisory positions and placing new demands on all instructional leaders who would not be bypassed in the rush of new educational developments.

The influences operating to shape the supervisor's role may be clarified by examining the supervisor's roles during the past 50 years. During the first 20 years of this century, the supervisor was concerned primarily with quality control in respect to the teaching process. Teacher preparation was at a minimum and supervisors were charged with visiting classes, observing and conferring with teachers. Demonstration lessons and institutes on the content and method of various subject fields reflected the level of preparation of teachers as well as the introduction of new areas to the curriculum.

By the 1920's, concern was developing for the impact of the total educational program and much attention was focused on over-all objectives, such as the Cardinal Principles of Education. Course-of-study development as a means of reorganizing the curriculum was the usual approach. Supervisors often became course-of-study writers, first with the help of outside consultants, and later with committees of teachers assisting. The role of the general supervisor developed gradually, becoming increasingly common.

During the 1930's and 1940's, the inadequacy of course-of-study revision alone became apparent, and new approaches of numerous kinds were invented. Central to many of these were the ideas of participation and involvement of teachers in the process of curriculum change.

By force of circumstances the supervisor became a specialist in group dynamics. American business and industry, with help from the social psychologists, had done the pioneering, and in many school systems group work supplanted close, individual supervision as well as course-of-study writing. "Curriculum change as social change" or "curriculum change as change in people" became the slogans. Educators were seeking to understand

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themselves and the social system within which they operated, and significant progress was made.

The outer world was not forgotten. There was much concern for lay participation. The rights of parents and other citizens to determine the purposes of public education were loudly proclaimed, and much attention was focused on the complexities of doing this.

But supervisors, and many in other walks of life, lost contact with the substance of what was happening. The Second World War and its attendant developments had shocking consequences which were not evident until well into the 1950's. The effects and influences of automation, electronics, and nuclear power along with the injection of large, private foundation funds into the educational stream hastened new developments.

There arose many criticisms of education. Increasingly supervisors became involved in interpretation of the educational program to the public.

The sources of curriculum change largely shifted to the public and to the professors in the academic disciplines. In some instances, the supervisory staffs in school systems were not even consulted as changes of various kinds were introduced by boards of education. It is probably safe to say that thousands of supervisors felt bypassed. Regarding themselves as forward-looking professionals, sometimes weary in their efforts to bring about curriculum change, they suddenly realized that now they were regarded as reactionaries who were blocking "progress."

The specific nature of some of the influences was clear, although the precise channels of influence were not always discernible. Foundation grants supporting specific proposals for reform or financing studies of particular aspects of the curriculum were obviously a new and powerful influence. The federal government became a financially generous party to changes at elementary and secondary levels. The revived interest of the academicians in these levels of education lent new force and prestige.

NEW DEMANDS

These politics of curriculum change which have emerged since the Second World War make new demands on supervisors. Fresh kinds of thinking and new skills are called for.

A most significant development in response to these needs is the present widespread tendency for professional groups to re-examine their qualifications, their preparation, and their responsibility for professional improvement. The NEA's New Horizons Project has helped to lay much of the groundwork for this effort.

The Association for Supervision and Curriculum Development, NEA, has established a Commission on the Preparation of Instructional Leaders and is actively coordinating its efforts with those of other professional organizations.

The ASCD Commission is now preparing a policy statement, the final precise form of which cannot be set forth at this time. But it is possible to indicate what may be the major areas of attention in the policy statement. The Commission is of the opinion that action in at least six areas is required.

First, the qualities and abilities essential to effective operation as supervisors and curriculum workers need re-examination and re-definition. The functions, activities, and areas of required competence of those with the task of serving staff members on instructional matters require clarification. This is not a simple job, but an effort is being made to define, in terms that will be helpful to institutions preparing supervisors as well as to school systems, the expectancies held for those who serve in supervisory and curriculum improvement positions.

Second, standards for the selection of supervisors are essential to assuring competent personnel. Selection is a continuing process, starting with teachers serving in curriculum improvement roles, continuing through identification of individuals showing promise in this work, tryout in leadership positions through internships, and selection for appropriate supervisory positions throughout a professional career.

Third, there is a great need for criterions for planning preservice and in-service supervisor-preparation programs. Many now enter supervisory positions with no preparation or only meager, inadequate training. At least one year, possibly two, of preparation are needed to foster development in the performance areas significant for today's supervisor.

Four, if programs are to be effective, institutions providing appropriate supervisor - preparation programs must be accredited. This gives the public assurance that supervisors have satisfactorily demonstrated competence in an approved preparation program.

Fifth, procedures for licensing supervisors are in need of re-examination. The absence of requirements and the prescribing of two or three courses, the two most common practices, appear inadequate. Licensing might well be based primarily on satisfactory completion of an approved or accredited program.

Sixth, professional organizations should take action to assure quality performance of their members. There is little experience in the field of education to guide action in the areas of selfpolicing by a professional group.

Greater demands will be made on education in the years ahead and one of the most important responses of supervisors is to be certain that they are adequate to the task. Supervisors can do much to improve the quality of their own group by taking responsibility for clarifying their role, improving selective admission, and developing requirements for licensing and for quality performance. •

One of Russia's Schools of the Future

Boarding School No. 15 in Moscow

STANLEY NISBET

In The Scottish Educational Journal

SOVIET educational policy has adopted the boarding school as the school of the future and plans eventually to have all children educated in such schools. Knowing this, we were anxious in our visit to the U.S.S.R. not to leave Moscow without visiting one of the boarding schools already functioning. Our request was met, and on a September morning we were taken to the outskirts of the city to Boarding School (Schola Internat) No. 15.

We had a warm welcome, being met on the steps by the Director and a group of children who presented us with flowers. The Director gave us some background information. This was one of the first boarding schools to be established; it had been running since 1956. The number of boarding schools in Moscow had grown from 15 in 1956 to 70 in 1961. The policy, he said, had changed regarding the desired size of the schools. Instead of 600 formerly considered the optimum enrolment, future schools would be built to accomodate 480 pupils (in some cases 240).

The Soviet boarding school is coeducational, taking pupils at the age of seven and giving them the normal curriculum up to the age of 15 or 18. The school we visited provided the full 11-year course, and the majority of pupils chose to stay and complete it.

Reported from The Scottish Educational Journal, *XLIV (October 27, 1961), 767.*

The Director confirmed that the national policy was to change from day to boarding schools throughout the whole educational system as quickly as possible. He reminded us that the official blueprint for the future estimates that by 1965 there will be two million Soviet children in boarding schools.

That parents are anxious to send their children to these schools is evidenced by the fact that five to ten applications are received for every place in the school. The Director said that at first priority had been given to those with poor home conditions, but now things had improved and the school took children from average and good homes, too. The pupils go home every weekend, a weekend being from Saturday afternoon to Monday morning.

The Director, a man of considerable academic standing as well as practical experience, said that he found his work both fascinating and difficult. He reminded us that the English pioneered in boarding-school education but these schools were still new in the Soviet Union and their problems were only gradually being solved.

SCHOOL ACTIVITIES

As we went around the school, we looked in at a 6th class (age 12-plus) studying English and at some empty rooms which were used by the various "circles" after school hours. There was a special Pioneer room, with a central table displaying political literature and other tables about the room with examples of members' work. The Pioneers of each class last year had to carry out some project and prepare a joint report on it. The subjects varied but many had chosen the life of Lenin as a topic. One group had made a cardboard model of a Sputnik which, when opened up, contained their report.

Knowing that in the Soviet school the Pioneers in a class usually produce a regular "wall newspaper" for their classroom, we asked to see some from the previous year. They were produced for our examination. One had the title "I Want to Know Everything," and consisted of a long list of general knowledge "quiz" questions. Another assumed the task of helping the teachers by gently ridiculing some of the more troublesome pupils. These were depicted in caricature style, with appropriate comments alongside.

In the dining room we found tables with seating capacity for six or eight pupils. Dinner at 7:30 P.M. was a formal meal, we were told, and the children must sit in their own places. This was not required at other meals. The school classes take turns at serving meals.

We toured the medical department, consisting of an inspection room and a sick bay, the school library, with 11,000 volumes, and the dormitories. The dormitories for the small children (seven-year-olds) were small and one older pupil slept in each one, a part of the policy giving older pupils some responsibilities in the life of the school.

While observing some boys and girls repairing bicycles, we were told that they were members of the "Touring Club," one of the most vigorous of the school's extracurricular activities. The previous year, the older members of this club had gone on a cycling tour to Estonia and had given 17 concerts during the tour.

During our visit we saw a number of pictures hanging in the entrance hall and were told that they had been selected and bought by the pupils with money earned from collecting scrap metal.

As we moved in and out of the rooms, we met pupils and teachers going and coming, as one would in any school. The atmosphere was quiet but friendly, and the children seemed cheerful. In the playground, the games, the noise, and the laughter were essentially the same as we find everyday in our own playgrounds. •

Can We Measure Competence by Teacher Traits?

Effectiveness—an Elusive Quality

NICHOLAS A. FATTU

In Who's a Good Teacher?

WHAT research says about teacher effectiveness cannot be summarized in a few words. Research shows that it is not the clearly defined quality that many would have us believe. In fact, research indicates that teacher performance is one of the most complex human phenomenons that we are privileged to study.

A review of the research findings suggests that results have been inconclusive to a large extent because of the assumed simplicity of the concept held even by those charged with using and studying it. Simplicity or emptiness of perception is manifest not only in perceptual confusions, but even more emphatically by the attitude, the effort, and the resources devoted to inquiry in this area.

One difficult problem in studying teacher effectiveness is whether to assume that "effectiveness" is a statement about an attribute of the teacher, a statement about an attribute of a teacher in a particular teaching situation, or whether it is a statement about the results of a teaching situation.

The purpose of studies of teacher characteristics is to discover which traits or combinations of traits are closely enough associated with teacher competence to permit prediction of such competence. Among these traits are intelligence, knowledge of subject matter, scholarship, educational background, age and experience, professional knowledge, cultural background, socio-economic background, teaching attitude and interest, and voice and speech characteristics.

Intelligence.—In general there appears to be only a slight relationship between intelligence and *rated* success of an instructor. Correlation coefficients for high-school teachers tend to be somewhat higher and less variable than those for elementary teachers. For all practical purposes, however, this variable appears to be of little value as a single predictor of rated instructor competence. This does not mean that teachers do not need to be intelligent. It means that within the range of scores characteristic

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of teachers, differences in intelligence have not been shown to be crucial.

Subject Matter.—Generally, research findings do not support the popular assumption that subject-matter mastery assures success as a teacher. Whether or not knowledge of subject matter is related to teaching competence appears to depend on the particular teaching situation. As with intelligence, this item, within the range of knowledge demonstrated by teachers, does not appear to be a major factor in teaching competence. Results suggest that knowledge of subject matter in relation to teacher competence is no simple matter of one-to-one correspondence.

Scholarship.—Good grades in college and effective teaching appear to be consistently related. But no investigator has shown that the attainment of a particular standing in high school or college or the mastery of any single course or group of courses is essential to teaching competence. The positive correlation coefficients usually found probably reflect primarily the relationship of general intelligence to both academic and teaching success.

Professional Knowledge.—There is some evidence that teachers who have more professional knowledge (as measured by the National Teacher Examination, for example) tend to be more effective teachers, though the evidence is not so strong as might be expected. There is evidence that teachers who have had professional preparation are more effective than those who have not. In terms of ability to solve problems that teachers meet, studies find significant differences between those who had completed a methods course and those who had not; those who had an education degree and those who had a liberal arts degree; those who had one year of teaching experience and those who had none; those who had three or more years of experience and those who had only one. Differences, without exception, favor those with the greater professional knowledge. The positive relationship of professional knowledge to performance was sharp and undeniable.

Age-Experience. — From cross-sectional data, it appears that teachers' *rated* effectiveness at first increases rapidly with experience and then levels off at five years or beyond. The teacher may show little change in rated performance for the next 15-20 years, after which, as in most occupations, there tends to be a decline. One does not know if this is a true deterioration or merely a reflection of a lower level of preparation.

Cultural Background.—There is no substantial evidence that cultural background is significantly related to teaching effectiveness.

Socio-economic Status.—The relationship of socio-economic status to criterions of instructor effectiveness is weak. They suggest, however, that those from higher groups usually have greater probabilities of success than those less fortunate.

Sex.—No particular differences have been shown when the related effectiveness of men and women teachers has been compared.

Marital Status.—Despite some prejudice to the contrary, no evidence appears that married teachers are in any way inferior to unmarried teachers.

Teaching Aptitude.—Results obtained from measures designed to predict teaching ability show great disparity. Data thus far available either fail to establish the existence of any specified aptitude for teaching with any degree of certainty or indicate the tests used were inappropriate to its measurement.

Teaching Attitude.—Attitude toward teachers and teaching as indicated by the Yeager Scale seems to bear a small but positive relationship to teacher success measured in terms of pupil gains.

Job Interest.—Correlations resulting from the use of several standard interest tests either cluster around zero or are so inconsistent as to render such tests of doubtful value as predictors of teaching success. The common factors that were found through factor analyses to underlie the reasons given for choosing the teaching profession are perhaps provocative of further research, but are based on too few cases to justify any clear-cut interpretation.

Voice-Speech.—It appears from studies reviewed that voice quality is not considered very important by school administrators, teachers, or students.

Special Abilities.—Such instructor factors as empathy, professional maturity, general knowledge, mental ability, and social adjustment have been identified through factor analyses by various investigators. The statistical analyses so far reported, however, suffer from inadequacies of criterions, testing instruments, or number of cases.

The attempts to identify characteristics of successful and unsuccessful instructors by making lists of traits based on opinion, therefore, appear largely sterile in terms of usability for evaluation or selective purposes. •

COMPETENCE in teaching is not an automatic by-product of a general education or readiness to serve mankind, important as both obviously are. Neither exuberance of subject matter nor solicitude for children is enough. To convert talent into the skill that distinguishes a proficient teacher requires knowledge, discipline, and imagination. It calls for fortitude and industry . . . Professional preparation for teaching, far from being outmoded as some suggest, is more necessary now than it has ever been.—*John H. Fischer*, Teachers College, Columbia University.

An Experiment at Kenmore East High School

Team Teaching for Honors Students

LESTER J. SZABO

In New York State Education

WE at Kenmore East Senior-High School became interested in team-teaching experiments primarily for the purpose of enriching the high-school curriculum. Kenmore East is a new senior-high school located in the suburbs of Buffalo, N.Y. For a number of years, Kenmore has used a triple-track grouping with one group, the "blue circle" sections, aiming for scholarship opportunities. We had this group in mind as we studied available literature on team-teaching experiments.

Selecting history as a field because we had personnel with strong areas of specialization, we envisioned a team of complementary members rather than the master-apprentice team form. Three teachers, including the department chairman, were asked to plan a team-teaching program in American history for senior honors students. One teacher had a particular fondness for American foreign policy; the second, considerable experience in economics and government; and the third, strong interest in American political history. All were experienced teachers. All were intrigued by the possibilities of such an experiment and devoted time during the summer to planning the program.

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The experiment was launched at the beginning of the school year with three classes scheduled during the same period. Scheduling difficulties made it necessary to work with 72 pupils rather than the 45 we had planned for. Twenty-seven students in the group were achieving above-average grades in history. The 72 students were assigned, at random, to three groups which could meet together or separately under individual instructors. Each teacher was to be responsible for grading and evaluating the work done by his assigned students.

The combined classes met in a large study hall with semicircles of seats grouped around a movable blackboard, lectern, and maps. It was much like the atmosphere of a college classroom. All three teachers attended each lecture to be prepared to handle later discussion of the subject.

A weekly assignment, consisting of thought-provoking problems and a list of references, was distributed to the class. Arrangements were made to place the reference materials on reserve. Cooperation with the librarian was necessary to maintain materials for the weekly assignments and for the several book reports and the term papers that were required of each student.

Based on student preference, the large group broke down into discussion sections of 24 students at least twice each week. Reviews, quizzes, and test correcting all were done with the small groups. Students working on an advanced basis (Advanced Placement preparation, for example) would occasionally separate from their sections under tutelage of one of the three instructors.

Planning for the course was accomplished by the three instructors meeting together several times a week. Teaching assignments were laid out several weeks in advance to give adequate preparation time to each instructor. As much as possible, each instructor volunteered to teach those areas of greatest ability or interest.

The joint-planning sessions have produced new ideas and techniques with each of the instructors making use of his favorite. Methods used have been the question-and-answer technique, the use of chalkboard and dittoed outlines, student oral reports, panels and debates, intersectional quizdowns, audio-visual presentations, etc. Also, the differing viewpoints of the teachers presented opportunity to demonstrate that the study of history is often a study of opposing ideas. A debate between the teachers on such issues as the Campaign of 1960, American entrance into the League of Nations, and the philosophy of the New Deal has been one of the most popular techniques used.

There has not been opportunity to evaluate critically the results of this experiment. The teachers and the students realize that individual attention is somewhat slighted in the large group; yet they feel that the strength of offering and the small discussion groups offset this.

The teachers see several possible pitfalls with extending use of team teaching in the form they have been using. A great deal of time is needed for planning and preparing for lessons. No attempt was made to work with average or below-average students. Efficiency and enthusiasm appeared to fall off among the above-average students and it was necessary to separate several of these students from the group as they felt confused and insecure in the experiment.

It is planned to continue team-teaching at Kenmore East in American History honors classes, with possible expansion into English classes. The teachers involved are impressed with potentialities of team teaching. It is their belief that the students have experienced certain intangible results, including growth in maturity, critical judgment, and lasting interest in the study of history. •

What Should Teachers Tell Prospective Employers?

Teacher Disclosure of Information about Students

ACADEMIC FREEDOM COMMITTEE, AMERICAN CIVIL LIBERTIES UNION

In School and Society

TEACHERS at both secondary and higher levels of education are asked frequently by present or prospective employers (governmental and nongovernmental), by graduate schools, and by other agencies to furnish information about their students. Habituation to this proliferating process of interrogation and response has tended to obscure possible dangers to education.

The American Civil Liberties Union in this statement seeks to define standards of reasonableness for questions and answers in the hope that these standards will gain wide acceptance and provide support to the individual teacher who is called on to respond to inquiries regarding his students.

It is emphasized that resolution of the problems involved requires a weighing and balancing of risks. It is clearly in the social interest that each job, so far as possible, be filled by the best qualified person and, moreover, that in a sensitive agency, lack of loyalty to the United States should be a disqualification.

On the other hand, the professional relation between teacher and student, like that between lawyer and client or physician and patient, presupposes—at least within certain limits—the privacy of the communication.

This statement (condensed) was adopted by the ACLU's Academic Freedom Committee, of which Louis M. Hacker is chairman. Reported from School and Society, *LXXXIX (October 7, 1961), 319–21.*

There are significant differences between the situation of the teacher and that of the physician or lawyer. It is because of the public and vocational aspects of education that the teacher is confronted with the problem of disclosing information about individual students. A person as patient or client seeks aid; as a student he also seeks aid but in addition becomes subject to estimation or appraisal. Government, industry, or the academic world may wish to rate him; and they often rate him on the basis of his teachers' judgment. Moreover, a classroom is not the same kind of "confidential" discussion that prevails in the chambers of the lawyer, the physician, or the clergyman. It is not private in the same sense; in the classroom there are ordinarily many students, and sometimes there are observers.

But the teacher-student relation, like education in general, is not limited to the classroom. It is not confined to customary subject-matter or to academic "fields." The views of students on any issues whatsoever, whether they are expressed in a group or in face-to-face conversation, can be accepted by the teacher in a spirit of inquiry. In other words, it is difficult to map the boundaries of the teacher-student relation.

Those who think of education primarily as the delivery of information by teachers to students will find no problem here. But if probing, sharing, and hypothesizing are regarded as essential; if education requires uninhibited expression and thinking out loud; and if tentative or spontaneous ideas are to be encouraged as conducive to learning, then disclosure of expressed opinion, or even disclosure based on expressed opinion, can become a threat to the educational process.

The teacher-student relation is, therefore, a privileged one. The student does not normally expect that his utterances in the classroom or his discussion with teachers or his written views will be reported outside the college or school community. He may expect that what he says will be revealed to a professional colleague. And he considers this permissible, tacitly assuming that the area of confidence is being extended for good reasons. But if he knew that anything he said or wrote might be revealed indiscriminately, the kind of relation in which he originally felt free to make his pronouncements would cease to exist.

In any problem, then, concerning the legitimacy of professional disclosure, the vital consideration seems to be: What types of disclosure might jeopardize the integrity of relations that are basic to civilized life.

In his desire to assist government agencies in protecting the public interest, the teacher is likely to experience the apparent dilemma of doing either disservice to the community or disservice to his students, of violating either his obligation as citizen or his obligation as teacher. He often finds himself responding to interrogations vaguely, wondering why he is compromising his standards of exactness.

In view of these disturbing experiences, there is need for an academic policy that will guide the individual teacher's discretion. The teacher should have opportunity to invoke universal principles of his profession releasing him from answering questions that threaten his academic integrity.

Such principles cannot be set forth in the manner of detailed prescriptions. It is entirely understandable that a teacher should resent being given a list of instructions. The present statement is not to be construed as legislating behavior or as exposing individual malpractices. On the contrary, it is designed to reflect the problems of common academic experience.

RECOMMENDED POLICY

When interrogated directly by prospective employers of any kind, a teacher can safely answer questions which he finds to be clearly concerned with the student's competence and fitness for the job. There is always a chance that even questions of this kind will covertly require the teacher to violate academic privacy. Questions and answers in written form make it easier to avoid pitfalls, but alertness is always essential.

Ordinarily, questions relating to what has been demonstrated as a student—the ability to write in a certain way, to solve problems of a certain kind, to reason consistently, to direct personnel or projects—poses no threat to educational privacy. But, questions relating to the student's loyalty and patriotism, his political or religious or moral or social beliefs and attitudes, his general outlook, his private life, may well jeopardize the teacher-student relation.

This danger is stressed while recognizing that there may be much important information which a teacher has acquired about a student, and that teachers are often the best possible judges—on the basis of contacts both inside and outside the classroom—of a student's development during years immediately preceding employment. The rapid changes that take place in a young person's life, and lack of access to the full environmental context of these changes, often make it desirable to suspend judgment, quite apart from interrogation by employers.

As a safeguard from the danger of putting the student in an unfavorable light with government representatives or employers of any category, simply as a result of some questions being answerable and others are not, teachers can preface each statement questionnaire with a brief *pro forma* statement that the academic policy to which they subscribe makes it inadvisable to answer certain *types* of questions, no matter who the individual student may be. Once this academic policy becomes widespread, presumptive inferences about individual students would no longer be made by employers.

The ACLU points out that public and private employers (actual and prospective) are always free to avail themselves of varied screening procedures and sources of information which can be utilized without injury to the student-teacher relation.

There is no reason to believe that the preservation of academic government security is at variance with the integrity of the academic process. A climate of free inquiry and learning may be expected to make loyalty firmer and more meaningful, and to discourage clandestine tactics. The society which subordinates academic freedom to security precautions faces many more problems than it solves. •

A First-Year Teacher Reports

What Went Wrong?

BRIAN C. MCKINNEY

In The English Journal

AFTER reading all the articles in the professional journals about clear-eyed, confident, and able English teachers reporting victories over ignorance, apathy, and traditional grammar, I am left with doubts about my own competency to teach English. There are no failures in the articles published.

Looking back at my first year of teaching, I am dismayed to find that my failures loom large and forbidding, overshadowing my successes. I will describe my failures, not because I feel defeated but in the hope that other beginners might profit from my mistakes.

My felonies were compounded in the high school in the small town of Gustine, California, and on some 20 seniors and 75 freshmen.

I charge myself with the following errors:

1. On the first day of school, I was presented with a set of large grammar, vocabulary, spelling, speech and composition workbooks. My first error was in using these workbooks.

My students underlined subjects, predicates, subjective complements, objects, synonyms, and homonyms. They labeled parts of speech, studied tenses and subject-verb agreement. My students knew what subjects and predicates were—they proved it on test after test. But in their compositions, they wrote: "The man with the green hat. Is my father."

Brian C. McKinney teaches English in the high school at Gustine, California. Reported from The English Journal, *L (October 1961), 472–74.*

My students demonstrated an awareness of the difference between "they're" and "there"—in tests. Their compositions read: "There all going."

2. With the freshmen literature book came a handy guidebook. Using this guidebook was my second mistake. After about six weeks, I lost the guidebook and discovered that teaching literature became stimulating and exciting.

3. My third mistake was in sneering at TAB books, dismissing many of them as "teen-age trash." I needed time to climb down from my lofty, lonely collegiate perch and discover that the reading of *any* book was a major achievement for many of my students.

4. Another mistake was in using the phonetic alphabet to teach spelling. "They can't spell because they don't really know what the words sound like," I told myself.

So, my students struggled with IPA, translating Ogden Nash into phonetic symbols and decoding limericks. But the students who couldn't spell the words which are spelled phonetically couldn't understand IPA either, and the ones who learned IPA didn't have trouble to begin with.

5. A big problem for any beginning teacher is establishing classroom discipline. I swung from *laissez faire* (which worked briefly because the new freshmen were afraid to make any noise) to authoritarianism ("One peep out of any of you without raising your hand and I'll kick you out.") Neither worked, and I am now proceeding somewhere between these two extremes with moderate success.

6. I talked over my students' heads for about a month. Then I talked down to them for about another month. Finally, we got together.

7. Fresh from college, I assigned amounts of homework which seemed reasonable to *me*–about two hours of study out of class for every hour in class.

8. I ignored the ungifted ("They're so slow") and concentrated on the gifted ("They're so full of ideas") students.

9. I favored the girls over the boys. Freshman girls are so much more eager to learn than freshman boys that I took the easy way out and failed to take the steps necessary to interest the boys in English.

10. "The secret of successful English teaching," I was told in college, "is in the amount of writing done by the students." So my students wrote – and wrote – and wrote. And I read. In the last nine months I've read more than a million words of student writing. Also, I wrote on the papers, sometimes more than the students did. I made humorous remarks about grammatical errors, encouraged improvement, and asked if the writer would say the same things he had written.

So they wrote and I read. And I thought I was teaching. But I discovered that the students paid little attention to my comments. They looked at the top of the page, noted their grades, compared their grades with classmates, and filed the papers in the wastebasket.

Finally, I began to encourage rewriting, suggesting that the students heed my comments and improve their grades by revising their compositions.

These, then, were some (and I think the most important) of my errors. It is said that man is one of the few animals who is able to profit from past experience. If an English teacher can be considered human–some of my students might debate the point–it is possible that last year was successful for me–that I learned something about the teaching of English. I hope so. And I hope that this report prevents other beginners from being caught in the same traps which ensnared me. Let them find their own traps. •

Public Information at Low Cost

How a Little Money Can Make Big News

In School Management

IN Port Jefferson, N.Y., schoolmen not only furnish 20 local newspapers and radio stations with a steady supply of genuine news, they also publish quarterly informational bulletins for mailing to the community's residents, all for less than $1000 a year. The figure is less than one-tenth of 1 percent of the district's budget.

Arthur T. Andrews, head of Port Jefferson's public-information program, says, "People who think they have to spend heavily to maintain good community relations are wrong. The job can be done just as well with a lot less money when schools use the resources–including people–which are available."

Andrews himself personifies the use of available personnel resources. He is not a public-relations man but chairman of the high-school's citizenship education department. He works about two hours each day directing Port Jefferson's public-information efforts as a collateral duty. For this duty, he receives a stipend of $500 a year–the only fixed expense for keeping the public informed.

The district's public-information program has two objectives: to keep news about the schools flowing to the public, and to build morale and good will among teachers, students, and the community.

Reported from School Management, V (*October 1961*), *115–18.*

"To reach the objectives, we write and submit to the newspapers stories about all the news our school system generates. There is plenty of real news available without getting into the area of sports and student social clubs," Andrews says.

Efforts are concentrated on activities of teachers and administrators, individual student accomplishments, class projects, changes in school procedures or policies, school-board proposals and resolutions, etc. For example, if the supervising principal spoke before a civic club, his remarks would probably interest the general public, so a news release is sent out on it.

One current task is to keep information going out on the planning taking place to reorganize and consolidate the district with eight others. This is a lengthy procedure and releases have been sent out on developments of the plan for several months.

Andrews places particular value on news about teachers. "When our teachers are promoted, gain tenure, or are elected to offices in a teachers' association, we send out releases. I can think of no better way to give these people a pat on the back, and it certainly builds up community interest in the schools."

TWO METHODS USED

There are two basic methods for scouting and gathering news in a school system. One is for the information officer himself to maintain liaison with the policy makers and administrators. The other is for a staff to maintain contact with teachers and students. In Port Jefferson, Andrews uses both.

On matters of policy, school officials keep him informed through carbons of correspondence and informal briefings. He is thus able to spot potential news stories before they break. Being informed from a project's beginning, he can write stories with full knowledge of the subject. If a special school-board or PTA meeting is scheduled, he can notify the local press and radio, outline the topic, and follow through with a news release. Since Andrews is kept informed, he is in a position to refer controversial topics to the proper administrative authority.

Most of the news of interest to the general public comes originally from teachers and students. To stay on top of developments in the classrooms, Andrews has organized a staff of news-gathering volunteers.

Each school in the district has at least one teacher who does part-time duty as a "reporter" for the public-information department. These teacher-reporters, by talking to fellow teachers and school principals, turn in much newsworthy information. To make their work easier and more thorough, Andrews circulates a notice to all school employes reminding them to tell their building news representative about promotions, unusual events, and other matters of news value.

This is an example of using available resources and demonstrates that it is not necessary to hire a professional reporter to write publicity for a school. A PTA member, a school-board member, and a lay advisory committee member could function for their organizations as the teacher-reporter does for her school.

Photographs often accompany the releases to newspapers. Pictures are taken by the high-school photography instructor and his students. Developing and printing are done in the school photo lab. Photographic supplies are provided under the instructional budget and the cost to the public information program is low.

Once the information has been gathered and a news release drafted by a reporter, it passes to the building principal for approval, then to Andrews for final preparation. The release then goes to the district's supervising principal for approval.

Andrews has a staff of student volunteers who type and mimeograph the releases and mail them to local newspapers and radio stations. If there is a large amount of material, classes in secretarial practice aid in processing the news releases.

Only the district's quarterly bulletins, written by Andrews and the administrative staff, are printed professionally and addressed mechanically. The price is low—about $55 an issue for 1300 copies.

The bulletins reach every home in the district. For addressing the bulletins, an addressing service is leased from a local newspaper. The cost of mailing an entire issue is about $25, as Port Jefferson has a mailing permit.

COMMON SENSE, SIMPLICITY

Andrews states that common sense and simplicity contribute to the program's effectiveness. "All volunteers know their jobs and how they fit into the program," he points out. "We have an organizational chart which describes their duties. There's no red tape and no delays in getting out a large volume of news."

As chief of the district's information program, Andrews serves as an information source for inquiring persons—new residents to the community, curious editors, etc.

"Newspapers and radio stations, particularly, know that my job is to keep them informed and to answer their questions. If I cannot supply the information they need, I put them in touch with the person who can. The same service is extended to real estate agents, librarians, and other persons who want information about the schools.

"This has saved every one, especially school authorities, a lot of time, and it insures the dissemination of factual information, not rumors or hearsay. It has become the foundation of an excellent relationship between the community, the press, and the schools." •

Why Public Relations?

- Without a good public-relations program, the excellent work done in the classroom is like winking at a girl in the dark. We know what's going on, but no one else does.—John Harold in *Midland Schools.*

- Is there a relationship between the extent of information programs carried on by schools and the quality of those schools? A study sponsored by the Midwest Administration Center reports that such a relationship definitely exists. The researchers were not willing to say that effective information programs bring about high quality schools or that high quality schools necessarily produce an effective information program. Rather it appears that an extensive information program is one of the attributes of a good school, just as is a good faculty, or library, or physical plant.—Harold Van Winkle in *Administrator's Notebook.*

Indefinite Quantitative Concepts

How Eighth-Graders Interpret Them

CLARK C. GILL

In Social Education

SOME eighth-grade pupils think that:

China has more than five billion people. (This is two billion more than the estimated population of the world.)

Halfway around the world is one million miles. (This is forty times the actual circumference.)

Over 100 million Americans were out of work in 1931. (This is more than twice the number of the entire labor force in that year.)

The northwestern coast of Africa and the northeastern coast of South America are only 100 miles apart. (The actual distance at the closest point is slightly over 1600 miles.)

These extravagant estimates were revealed when eighth-grade students were asked to give a precise meaning to indefinite quantitative concepts appearing in United States history textbooks.

For purposes of this study, 25 statements were selected from textbooks used at the eighth-grade level, each containing an indefinite quantitative term, such as many, few, several, a great deal, and millions. The students were asked to translate the terms into a definite quantity.

The aim of the study was not to draw elaborate statistical comparisons but to find out how flexibly pupils interpret vague textbook statements involving quantities. The range of responses and the median were found for each item. In some instances the range appears fantastically wide. This may be due to the fact that some students who find it impossible to give a reasonable estimate cannot resist the temptation to record a facetious one.

The range of responses was wide for all items, and often the median response did not approximate a reasonable answer. The widest latitude of responses seemed to prevail in estimating large sums of money, population, and distances. A few examples will serve to illustrate.

Item 1. "If we could look back *across the years* and see Christopher Columbus as he lived, what a variety of pictures would be shown!" Across how many years would you have to look back?

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The range of responses was from two to 600 years with a median of 468. One would think that the date 1492 would be so firmly fixed in the minds of pupils that few would miss a question of this type. One-fourth of the students gave a wrong response. Some wrong answers may be due to inability to recall dates, faulty mathematical computation, or a misunderstanding of the question.

Item 2. "The first battle of the Spanish-American War was fought *halfway around the world* in Manila Bay." How many miles from the United States is halfway around the world?

Responses ranged from 157 to 6,000,000 miles, with a median of 72,000. Almost 20 percent thought the distance was more than 25,000 miles. More than 10 percent thought it was 2,000 miles or less. The actual distance from San Francisco to Manila is 6,221 miles.

Item 3. "Many American homes were saddened as *tens of thousands* of young men lost their lives in battle in World War I." How many does tens of thousands mean?

The range was 4,000 to 1,000,000. The median was 32,000. Fully one-third of the pupils answered 10,000. More than 10 percent answered 1,000,000. The *World Almanac* gives 53,402 as the actual number of battle deaths.

It is quite clear that such terms as tens of thousands is an unfortunate choice in conveying any accurate or common meaning. When the textbook stated that "Theodore Roosevelt's family had moderate wealth," *moderate* meant less than $1,500 to 10 percent of the pupils and $100,000 or more to another 25 percent.

The sampling in this study was small and the findings cannot be generalized. For the group tested, the wide range of responses to indefinite quantitative textbook statements indicates that they communicate nebulous and erroneous information to a large percentage of the pupils.

TO ELIMINATE VAGUENESS

The question is: How to eliminate vagueness when dealing with indefinite quantitative concepts?

One suggestion to textbook writers would be to replace indefinite quantitative terms with precise quantities. Instead of saying that China has many people, give its estimated population and make comparisons with the population of the United States and that of the world. State the actual number of young men killed in World War I and make comparisons with the numbers lost in other wars or in automobile accidents.

The textbook writers can tighten their exposition to convey more precise and accurate meanings, but no textbook can do the job alone. The teacher must be alert to clothe every definite or indefinite quantitative concept with meaning. We live in a world dominated by science and mathematics. Many facts about the social world take on meaning only when expressed in precise statistical terms and when comparisons can be made with data already known by the pupils. Whether we are concerned with the astronomical distances of space flights, the profits of a billion-dollar corporation, or a national debt approaching $300,000,000,000, these figures need to be brought within the realm of comprehension of the pupils. Pupils will need to become accustomed to thinking in larger numbers so that millions and billions do not run together into an undistinguishable blur in their mental constructs.

All of this means that teachers must develop points of reference by which pupils interpret new data. If pupils know the circumference of the earth, then halfway around the earth has some meaning. If they know the population of the United States, they can use it as a basis of comparison when studying the population of other countries. If they know the size of our gross national income, then the size of our annual federal budget can be compared to it. If they know the area of the United States, then the area of Brazil takes on meaning by comparison.

When pupils learn to derive precise meaning from definite and indefinite quantitative concepts in the social studies, then we will have reduced substantially the excessive prevalence of verbalism in this field. We will also be heeding somewhat belatedly Dewey's cogent warning about vagueness, "the source from which flow most bad intellectual consequences." •

Misplaced Concepts

- Women suffrage, according to one Kentucky pupil, means that women can only work so long or they'll suffer. —Shirley Williamson in the *NEA Journal*.
- An Arkansas teacher, discussing diseases with her first graders was told: "Three communicable diseases are mumps, typhoid and TV."—From *West Virginia School Journal*.
- One nervous second grader, making a brief speech at the dedication of the grammar school, introduced the "artichoke" who designed it.—From *The Texas Outlook*.
- One young fellow was more astute than he realized when he wrote, "The world is a big ball which revolves on its taxes."—From *The Kiwanis Magazine*.
- Mrs. Howe sent her small son across to the neighbor's home with the message that if it were agreeable, Mrs. Howe would call that afternoon. On his return, the lad was asked what he had said to the lady. "I told her," he replied. "that if she would make herself agreeable you would be over this afternoon."—From *The Balance Sheet*.

For the Eleventh and Twelfth Grades

Why Latin First?

H. San Juan

In

The Modern Language Journal

It is not my intention to discuss the importance or necessity of Latin in the secondary school. My purpose is to determine the relationship of Latin to modern foreign languages (and their relative sequence).

Should the study of Latin precede or follow modern foreign languages in the secondary-school curriculum?

The present general practice in the majority of schools, especially in the Catholic schools, is to offer two years of Latin preceding the study of modern foreign languages. There have been three reasons for precedence of Latin: tradition in the field of education; origin of the languages; their chronological order in the history of civilization.

At the same time, other factors have been overlooked. It is my belief that the factors that are being overlooked are more important and decisive.

I do not advocate removing Latin from the secondary-school curriculum. However, experience has shown me that students do not need Latin as a foundation for the study of a foreign language. As a Spanish and Latin teacher, I have carefully noted the achievement of my students and have arrived at these conclusions:

Students of Spanish without previous knowledge of Latin have in many cases surpassed the achievement of students with such knowledge.

Students failing in Latin to the point of having to drop it have attained satisfactory performance in studying Spanish.

Students of superior ability have studied both Latin and Spanish simultaneously with excellent results.

Students having completed two years of Spanish have been very good in the study of Latin.

Factors such as IQ, general achievement, achievement in English, musical education, and good study habits have contributed more decisively to success in studying Spanish than previous study of Latin, despite the fact that Spanish is a corrupt Latin.

My conclusions prompted some questions to be considered. If the student has had experience with a second language in elementary school, why should he discontinue studying that language to learn Latin? Why study a language in the elementary school or junior

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high if it is not continued in high school? If the study of a second language is to be based on constant use, through intense and continuous repetition of listening, speaking, reading, and writing, are two courses of nine months, five hours a week, sufficient to attain true achievement?

Why not study first a living language, a language used by other inhabitants of the contemporary world? Today's student, the citizen of the future, will not remain isolated in his native land, since the inter-relations among the citizens of the world are more necessary each day, and the modern foreign language is the tool for world understanding A second language will have more meaning and more practical value to the student having opportunity to speak Spanish, French, Portugese, or Russian—but not Latin.

I propose that we subordinate the study of Latin to the study of modern foreign languages. I advocate that we offer four consecutive years of a modern foreign language at the secondary level and postpone the study of Latin—as an elective—until the last two years.

When we place Latin first, we are violating the didactic principle of going from the easy to the difficult, from the immediate to the mediate, etc. A student studying a modern foreign language for two years before studying Latin will acquire and develop linguistic skills that he will transfer to the study of Latin. Also, after two years in high school, the following factors will facilitate the study of Latin:

More mental maturity.

Better knowledge of the English language.

A knowledge of a second language which will help in understanding problems in studying Latin.

On reaching the junior year, the student is more likely to have chosen his vocation and will know if he needs Latin.

Although I recognize the disciplinary value of Latin, I believe that we exaggerate it. If efficiently directed. other subjects have this same instrumental value. I urge that we leave the intensive study of Latin, with emphasis on the aural-oral procedure, for the secondary schools that prepare future Catholic priests, to whom Latin is of vital importance since it is the official language of the Roman Catholic Church. •

THE *Mississippi Educational Advance* attests that this really happened to a Latin teacher in that state: The teacher went into a drug store to look for a fountain pen. The clerk gave him one to try, and he wrote. *Tempus Fugit, Tempus Fugit, Tempus Fugit*. The clerk watched him, then held out another pen and said, "Would you like to try this one, Mr. Fugit?"

Learning through Searching

LUCILLE LINDBERG

In Childhood Education

"HOW can I add one more thing to the curriculum? There is more in the program now than we can get done!"

The expression above is heard often when discussion turns to the need for better preparing children for today's world. Inferences are made that attention must be given to new areas of thought if children are to be ready for rapidly changing institutions.

What are we really saying? If we are saying that what is studied in school is all that will be known, and that children learn only what is examined point by point in class, then our task is hopeless. If we worked day and night and if children learned at a fantastic rate, we could never include in the curriculum all the knowledge children will need in the years ahead.

Because we have such concern for preparing our children, with the best of intentions we cripple rather than strengthen them as we try to cover more and more material. It is our responsibility to make certain that children become aware of the great amount of knowledge existing and rapidly being amassed, that they develop their power to pursue it and discover still more, and that they become steadily more able to develop evaluative criterions of high quality.

Our responsibility to insure maximal learning is greater than ever before. We fail in this if we make education a "pouring in" process. Achievement according to potential will depend on the extent to which each child gains within himself the power to discover new learnings. This is not suggesting that we hopefully leave children on their own; it is suggesting that our focus be on helping them develop sound processes of exploration.

When a child makes a discovery, the learning becomes his own forever. He may forget it temporarily but it is still his, for he can again search for it. What he has discovered he can see in context and understand its relationship to other learnings, sensing many shades of

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meanings involved. Because he has developed a learning, he feels a sense of power over it; he can control it rather than be controlled by it and so is spurred on to further learning.

HOW TO DO IT

How can we help children to develop this power over the processes which make it possible for them to learn through searching?

Almost every teacher is already engaged in some activities which encourage the development of these processes. The content needed is found in the tools and knowledge needed in everyday living. For example, there is the weekly spelling. A child can gain great power as he is helped to study words. Why let him struggle over 25 words a week, limiting his opportunity, when by encouraging processes of discovery he can be the master of hundreds?

When a child knows how to spell even one word, he can quickly use this learning to spell many others, checking each one to see if he is correct. If he can spell *habit* he probablv can quickly discover how to spell *habits, inhabit, inhabiting, habitual,* etc.

With pronunciation, too, the process of discovery applies as the child learns the many variations of sound which a letter can have. Instead of being confused, he thrills to the intricacies as he pushes to discover more and more of the various sounds. He thus becomes a master of his own language, at the same time able to look with understanding at the language of others.

The child can be helped to enjoy the flow of language as others have put it together, rhythmically expressing ideas and feelings in many days. He feels the power of the language and grasps the deep significance of a poem, not through dissecting it, but through hearing it again and again until it becomes a part of him. He discovers differences in pattern and ultimately seeks to know the technicalities involved. Hence, it becomes a part of his life to be used always instead of something he once studied.

As the child reads, we encourage him to talk back to the author, questioning what he finds on the printed page, trying to capture the deeper meanings in what is being said. This implies that what he reads must be worth reading. We cannot afford to take his time for words put together as an exercise. Even in the beginning stages he should read material written well, words so delightfully chosen that he can linger over them. We cannot afford to dictate what shall be read or that all should read the same. Instead we help him to become increasingly aware of his own feelings about what is read, so that he discovers what constitutes quality in written material.

IN MATHEMATICS

In mathematics it is possible to demonstrate the steps in exchange or in long division and ask a child to follow them exactly and so develop techniques. But how much more rewarding to the child if we help him discover mathematical relationships and encourage him to find many ways of approaching problems. As he makes discoveries, he is developing power with yet another language, the language of mathematics.

A child can learn to search as he studies his own county or state. What crops are raised here? Where else are these crops raised? Which conditions are alike? Which are different? Are there other places in the world where these crops could be raised? Why aren't they?

IN OTHER AREAS

Discoveries about climate begin to take form. Differences about altitude come into focus. The effect of mountains or oceans on rainfall is noted. Numbers of inhabitants and their needs provide other areas of investigation, as do lines of transportation. Conditions under which settlements were made and by whom make possible still other insights. As each child searches for reasons, sharing and checking with others and with authorities, he accumulates vast amounts of knowledge which he is able to use because he has discovered so many relationships. He develops the ability to use it to probe the reasons for many things.

The same process of discovery can be practiced successfully in all subject-matter areas of the curriculum.

As a child searches and makes discoveries, he becomes aware of his developing power. It is exciting and wonderful to him. With this awareness comes the desire to push himself still further, a selfpropelling excitement which keeps him perpetually studying. As he senses his growth, he values himself more as a human being.

URGE FROM WITHIN

If we help children to learn the processes of discovering knowledge and ways of working for themselves, we need not give our energies to finding fascinating ways to hold their interests or whip up their enthusiasm. The strong urge to pursue learning comes from within.

Knowledge is accumulating at so rapid a rate that no one can absorb as much as he would wish. As man becomes more adept in his searching, both the rate and quality of his learning will soar. The achievement of such quality is an important discipline of democracy.

If we do all that we can and should do to prepare our children, they will leave our schools saying, "There is still much to learn, but I am capable of pursuing truth and shall continue to do so the rest of my life. It will be a privilege to always be learning."

There are vast and complicated problems all about today, as there were yesterday and as there will be tomorrow. Our children must not feel, "Oh, dear, why must this be?" but rather, "I am capable of living in the midst of crisis." •

Neglected Dimensions that Need Attention

Social Studies with a Difference

ALICE MIEL

In The Instructor

SOCIAL studies could make much more difference in the lives of individual children and in the society educating them if elementary-school teachers would cut down on a dimension that is often overemphasized and give more attention to some dimensions now largely neglected.

Conveying bits of information is the dimension that could be deemphasized. Children already are filled with information from many sources. Instead of adding to this disorganized and only half understood mass, teachers could help children sort it out. Teachers could help children to clarify, organize, and extend information so that facts are checked and classified into such useful categories as occupations, contributors to advances in health, forms of government, etc. Teachers could help children to see how facts are interrelated, and to draw useful generalizations (for example, taxes buy certain services that would be too costly for private individuals).

This process of clarification can take place almost any time in a school day, if teachers watch for "teachable moments." Current-events periods devoted to bringing order into apparently disconnected and meaningless events have quite a different flavor from the wooden rehashing of news that often results when "Bring in a current event" is the homework assignment. School becomes a place where children's questions are dealt with, where they get help in examining what goes on around them, and where they thus are aided in becoming oriented to their world.

A social-studies teacher can be effective in helping children to make acquisitions valuable to them throughout their lives. These acquistions are of four types:

Learning to care about people.—This includes oneself. It means developing feelings of love for humanity, caring that humanness is advanced, not retarded, by social arrangements and by the acts of

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Alice Miel is Head, Department of Curriculum and Teaching, Teachers College, Columbia University, New York. Reported from The Instructor, *LXXI (November 1961), 6, 112.*

individuals and groups. It also means caring about one's own integrity and uniqueness.

Caring about being informed.—A child starts out wanting to know. This should be encouraged at home and at school. One special responsibility of the school is to help a child go on to learn the importance of having as much accurate information as possible before advocating or taking action.

Learning how to inform oneself on any topic.—This means learning how and where to search for needed information and how to use it in planning courses of action and in solving personal and social problems.

Developing skills of cooperation.—This makes it possible for one to join with others to make this a better world.

Most studies selected for concentrated attention by a teacher and his pupils can, if properly developed, yield the four types of acquisition described. The studies will have added value, however, if selected on the bases of: significant subject matter, meaningful subject matter, and subject matter not easily pursued without the guidance of the school.

SUBJECT-MATTER SELECTION

Subject matter is significant if it is highly important for the individual in a particular society. For example, the educated individual in today's world knows the differences between a modern industrial society and a society yet to be developed economically. He knows that many human beings do not receive their birthright of health, education, and a life of dignity. Such information has social significance.

Significant social-studies subject matter has people at the center. It is easy to forget that most important element. Teachers sometimes teach children how high certain mountains are and fail to teach how the mountains affect people living in the vicinity. Even when the focus is on people, like the natives of an African country or of a Pacific island, they are often presented as if they were costumed dolls dressed to amuse Americans and make them feel superior.

Subject matter is meaningful if it makes sense to the individual, if it ties in with and extends his present meanings, if it is really understood. Certain information may seem highly crucial and intriguing to adults, but if it is not grounded on the firsthand experiences of the individual child, it will result only in verbal glibness. Children may gain a better understanding of what it is like to have a family if they visit an orphanage and see what institutional living is like. They may begin to understand the interdependence and monotony of the assembly line if they themselves operate one to produce a salable product. They will find it easier to judge members of racial or religious groups as individuals if they have direct opportunity to see what individual differences there are among people who at first glance may seem alike.

If children have adequate personal experience in a particular aspect of subject matter, they can extend their area of understanding through reading, pictures, and other indirect means. However, it requires a very observing teacher to determine when children are building new insights rather than mouthing empty words.

Children can acquire by themselves considerable understanding of topics like the westward movement through gradual absorption from movies, television, and self-selected reading. However, to develop an understanding of the people of India or the Belgian Congo adequate for grasping their problems in becoming modern, independent nations is a much more demanding task. Many of the sources are current and scattered. Social sciences not yet well developed for the elementary school—anthropology, political science, social psychology, and economics—have to be consulted. The arts can furnish additional help.

Studies of this type are not likely to be pursued in depth by individuals on their own. Children need help in making such investigations, in dealing with the value dimensions of the problems uncovered, and in developing good feelings toward people far removed from them in religion, economic status, and skin color.

Elementary-school teachers have it within their power to give children social-studies experiences that matter, that open new doors and raise some of man's unanswerable questions. What is required above all is that the teachers themselves become students of the significant movements in their society and that they care enough about the direction their society takes to care what kind of persons their children will be. •

• The teacher largely governs the moral and spiritual atmosphere of the classroom. After all, the self of the teacher is taught along with the regular materials of study. The right kind of person teaching history, literature, or chemistry will do far more good than will the wrong kind of person trying to teach a course in the Bible!—Rodney Cline in *Peabody Journal of Education.*

• A teacher had been asked to find the number of children in her class receiving free meals. As one little boy looked a bit doubtful, she asked him, "Are you free, John?" "Oh, no," he replied, "I'm five."—From *Scholastic Teacher.*

• Freddie was told to go play with his friends. He said, "I've got only one friend, and I hate him."—From *Pennsylvania School Journal.*

The Army Language School

KLAUS MUELLER

In Looking Ahead in Foreign Languages

Klaus Mueller is Director, United States Army Language School, Monterey, California. Reported from Looking Ahead in Foreign Languages, *a report published by California State Department of Education, 1961, 33–37.*

THE United States Army Language School at Monterey, California, has a fairly extensive institutional history. It was established in October 1941. Its graduates served as military linguists throughout the Pacific Theater during World War II. Until 1946, the school focused on teaching the Japanese language, but as a direct result of the nation's broadening global commitments, the Department of Defense expanded the school's activity. Today training is conducted in 28 languages.

The mission of the school is to train selected individuals from the three branches of the armed services and other governmental agencies in foreign languages prescribed by the Department of Defense. Students are from all kinds of backgrounds with a diversity of rank and assignment. A typical class may be composed of a full colonel, a major, two master sergeants, a navy lieutenant, a communications technician, a private, and a civilian. A private with a M.A. degree in a foreign language and a captain who never attended college and never studied a foreign language may be found in the same class.

The minimum objectives of training are stated in priorities. The first priority is to teach the student to understand the target language and speak with fluency and reasonable accuracy. Pronunciation should approximate that of a native speaker. The second priority is to teach the student to read and write the language without limiting maximum training in the audio-lingual skills.

To achieve these objectives, all courses are based on the premise that to learn to speak a language it is necessary to speak it and to speak it as much as possible during a concentrated period of time. It is recognized that language is an arbitrary system of communication. Therefore, it is not necessary that the student be able to describe the system but he must always be able to use it—he need not know "why," but he must always know "how."

Also, instruction is based on the fact that language is a set of habits which the student must master and control without conscious reference to the mechanics of grammar. To speak effectively, he must acquire these habits through a considerable amount of oral pattern practice until complete motor skill in manipulating the language is reached.

Students spend six hours a day in class for five days a week in groups of eight or less and they devote an average of three hours to after-class practice. Courses of instruction vary in length, according to the purpose for which students are being trained and depending on the language taught.

At present, 47-week courses are offered in Albanian, Arabic, Bulgarian, Chinese Cantonese, Chinese Mandarin, Czech, Finnish, Greek, Hungarian, Indonesian, Japanese, Korean, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovene, Thai, Turkish, Ukranian, and Vietnamese. French, German, Italian, Portugese, and Spanish courses are of 24-week duration.

The course materials are designed to achieve a carefully graduated and controlled text encompassing the whole language structure and utilizing the most frequent speech patterns and vocabulary. Toward this end, structural dialogues which must be memorized verbatim form the nucleus of the daily lesson. All additional features and other materials in the daily lesson are prepared as logical extensions of the structural dialogue. Also, all classroom practice is based on either structural patterns or new sounds first introduced in the structural dialogue.

In developing course materials, the aim is to limit the vocabulary load during the initial stages and gradually increase the number of new words.

THREE PHASES

The course is divided into three separate but mutually integrated phases: pronunciation, structure, and application.

The purpose of the pronunciation phase is to give the student intensive oral drill in the sound system, stress in intonation patterns, and the most frequent structural elements. In this phase, the student masters the phonology of the language and begins developing firm habits of native pronunciation at a normal rate of speech. The material is introduced, drilled, and learned in the context of structural dialogues in question-answer drills, the subject matter being in ordinary real situations within the target language environment.

A significant principle employed during the pronunciation phase is the elimination of a printed foreign-language text using conventional symbols. The student is supplied with a basic translation of the basic dialogue, a set of cue pictures, and, where applicable, a phonetic transcription and stress and intonation patterns. A complete recording of the material spoken in the language accompanies the text. In this pronunciation phase, all students must rely primarily on what they hear and not what they read. The cue pictures and stress and intonation patterns merely provide clues to meaning, stress, tone, and pitch.

The structural phase is the longest phase, covering about three-fourths of the course. Its objective is to teach the student to manipulate freely the morphology of the language and enable him to use it in everyday situations and during specific military activities.

The central feature of the daily lesson remains the structural dialogue in which has been incorporated a number of grammatical features, the understanding of which is based on previously introduced patterns. Students always move from known to unknown territory. Grammar is not clarified through explanation or discussion. The student must first perceive morphological changes through intensive oral usage before he is given an opportunity to fortify new habits by reading conventional grammatical statements. Furthermore, he does this outside of class.

The order of structural patterns of this material is determined by the frequency of usage by the native speaker. Items already introduced in the first phase are thus repeated, providing even more intensive drill of high-frequency patterns.

APPLICATION

The aim of the final phase, application, is to deepen and expand the speech habits developed during preceding phases and to broaden and accelerate vocabulary acquisition.

The student is daily placed in a linguistic situation which compels him to use the new language as an instrument of communication, not in terms of controlled pattern drills but in terms of natural speech. The instructor's efforts are directed at making the class utilize the language as freely as possible without focusing too much attention on details of pronunciation and grammar. The instructor directs and stimulates the student's desire to use the language, becoming an effective moderator or activity leader.

Audio-visual aids are used throughout the course but are most intensively used during the application phase. A wealth of pictorial aids and a wide range of three-dimensional objects, from large terrain tables and realia rooms to simple 10-cent toys, permit the instructor to establish a less artificial environment and combat the inherent fact that the classroom is not Spain or Iran.

On graduating, the average student is for all practical purposes fluent when using the target language in ordinary life situations. The program thus prepares the citizen soldier to facilitate military operations and promote international good will through understanding and effective communication, thereby serving the broadest needs of our national security. In addition, the United States Army Language School has proved to be a valuable resource for the nation's secondary schools in techniques, schedules, and materials in teaching foreign languages. •

Is It Inadequate Preparation?

Why Are Elementary-School Teachers Reluctant to Teach Science?

EDWARD VICTOR

In The Science Teacher

Edward Victor is an Associate Professor at Northwestern University, Evanston, Illinois. Reported from The Science Teacher, *XXVIII (November 1961), 17–19.*

OVER the years, the teaching of science in elementary school has been growing gradually but steadily. The current boom in science education has given impetus to this growth, transforming it from a gradual to a more urgent pace. Everywhere, elementary-school teachers are being asked to either add science or to give more time to science in their daily programs.

Concurrent with this increased activity in elementary science is a condition which threatens to become a stumbling block in the successful operation of an elementary-science program. This condition is the reluctance of many teachers in our schools to teach science.

This reluctance is not new. The professional literature has acknowledged its existence for some time. With the present emphasis on science in the elementary school, however, such reluctance gains added significance.

The most common reason offered for this reluctance is the inadequate science background of the elementary teachers. This seems logical and is so widely accepted that little research has been done to confirm it as definite and valid.

Consequently, it seemed appropriate to conduct a study of such factors which might be involved in the reluctance of elementary school teachers to teach science. Possible factors selected for investigation included:

Lack of familiarity with the subject and materials.

The feeling that one has to be a science expert to teach science.

Lack of familiarity with the objectives of science education in the elementary school.

The feeling that teaching science is a man's job.

The feeling of loss of classroom prestige, due to difficulty in answering questions about or teaching various phases of science.

A questionnaire was designed to ascertain attitudes and opinions about these factors and to derive other pertinent information. To obtain a sample of at least 100 teachers, a city of 25,000 population in Illinois was selected. This city employed 117 teachers in elementary grades one through six. Most were experienced teachers, 80 percent having taught four or more years and 65 percent having 10 or more years experience. Of the 106 teachers answering the questionnaire, 98 were women and only 8, or 7.5 percent, were male.

Although most of the teachers had taken one or more science courses, not counting general science, in high school, there were 11 teachers who had taken none. Biology was the most common, followed by physics, then chemistry.

Approximately 75 percent of the teachers had taken less than two years of science in college. Sixty-three, or 59 percent, had not taken a methods course in teaching elementary science.

FEW EXPERIMENTS

Although they reported having an adequate supply of equipment and materials for teaching science, the teachers conducted experiments infrequently in the classroom. Eighty-nine percent used classroom experiments once a week or less; 42 percent did experiments once a month or less. For the latter, this implied that experiments were performed in class not more than 9 to 10 times during the school year. Almost half the teachers reported that other activities cut into the time alloted to teaching science.

The teachers thought that chemistry was the most difficult for an elementary teacher to teach, followed by physics, astronomy, and geology. In almost direct contrast, the teachers felt that a course in biology would be most helpful to the teacher, followed by geology, chemistry, physics, and astronomy, in that order. This rank order of helpfulness of courses coincided with the list of science courses most commonly taken in college. This might seem to indicate that when a need for more science is recognized, there is a preference for going deeper into an area of familiarity, such as biology, rather than undertake study of something new and unfamiliar.

OBJECTIVES UNFAMILIAR

The teachers seemed to be unfamiliar with the objectives of science education, being inclined to teach for, or stress, the technological aspects of science rather than the underlying principles and philosophy. Seventy-two percent thought it was more important for children to learn the practical applications than to learn the underlying scientific principles, and 80 percent thought it more important for children to learn science content than to learn to think critically.

This almost exclusively female group approached unanimity in agreeing that males were better suited to teach science than females. And the eight male teachers were in agreement with that premise.

There could be a relationship between the reason for this response and the fact that the teachers were inclined to teach technology rather than scientific principles. Technology is often associated with gadgetry. Gadgetry is associated with "do-it-yourself" and "do-it-yourself" is associated with the male sex. Consequently, the females would logically tend to think that science teaching was a male domain. If this feeling is general among the predominantly female elementary teaching profession, it would be a definite factor in their reluctance to teach science. The relationship at first appears to be farfetched but grows more plausible with contemplation.

Almost half of the science teachers felt that expertness in science was necessary to teach science in the elementary school. They also felt that this would be a definite factor in reluctance to teach science.

CONTENT UNFAMILIAR

The statement is quite commonly made, and accepted, that science in the elementary school should be kept simple. If this statement is valid, then one could assume that a thorough knowledge of the contents of a good junior-high school series would be sufficient for an elementary-school teacher to do an adequate job of teaching science. Yet 77 percent of the teachers thought that this was not sufficient. Forty percent thought that even thorough knowledge of the contents of a high-school biology, chemistry, and physics textbook was insufficient background to teach elementary science.

Unfamiliarity with science content and materials was considered to be a definite factor in the reluctance of elementary teachers to teach science. This was the opinion of 76 percent of the teachers.

Loss of classroom prestige—probably a logical consequence of an inadequate science background—was also considered to be a contributing factor to this reluctance. Sixty-six percent of the teachers agreed that this reluctance was due to the fact that teachers often find it difficult to answer some questions raised by pupils highly interested in science.

The investigation revealed that those teachers having a greater background in college science devoted more time to teaching science in the classroom. They used demonstrations and experiments more often, and felt most strongly that the reluctance to teach science was due to lack of familiarity with the subject and materials.

Although an inadequate science background is definitely a factor in the reluctance of elementary teachers to teach science, other factors also exist. These other factors seem for the most part to have developed either as logical consequences of an inadequate science background or as substitutes for an understandable reluctance to admit to an inadequate preparation in science. The fact remains, however, that these factors do exist, and are strong. As such, they must be taken into consideration in any program, preservice or in-service, designed to overcome this reluctance to teach elementary science in the classroom. •

★ With Education in Washington ★

THE EDUCATION DIGEST WASHINGTON BUREAU

Little NDEA? – Education's friends in Washington never give up. General aid for classroom construction and teachers' salaries has been defeated. Only aid for the colleges is on the legislative agenda for the current Congressional session. Nevertheless, determined efforts will be made in the next few months to enact some specialized forms of aid for the schools and for teachers.

Initial impetus comes from a five-member, bipartisan Advisory Group on Higher Education of the House Education and Labor Committee. Rep. John Brademas (D-Ind.), a young Rhodes Scholar and former political science instructor at St. Mary's College, South Bend, is chairman. Other members are Reps. Robert N. Giaimo (D-Conn.), James G. O'Hara (D-Mich.), Charles E. Goodell (R-N.Y.), and Albert H. Quie (R-Minn.).

The Advisory Group, which would normally be termed a subcommittee, met last month on the Notre Dame campus with educators and scientists from the Midwest in two days of "invitational panel sessions," normally called hearings. Executive agencies, including the U.S. Office of Education and the National Science Foundation, will be heard this month, as well as spokesmen for some of the major educational organizations.

Emphasis of these confrontations of Congressmen with educators and scientists is on feasible Congressional action for higher education in the sciences and technologies. Higher education is scheduled for legislative consideration this year, and science and technology are relatively noncontroversial. Then why not draft a "Little NDEA," with provisions for graduate, professional, and undergraduate education plus certain forms of aid for high-school science and language education and post-high-school vocational and technical training to boot?

Well, why not? In three years, the states have put up $88 million to qualify for an equal number of federal dollars for science and mathematics equipment and classroom remodeling. Over 6,000 classrooms have been refurbished. The number of physics, science, and mathematics teachers is rising. Community colleges, technical high schools, and other types of public schools are training skilled technicians. NDEA buys equipment for these vocational courses and–would you believe it?–finances teachers' salaries, too.

A National Science Foundation report issued last Summer called flatly for doubling, within a decade, everything connected with science and engineering education and basic research–dollars, facilities, manpower, everything. "Every young person who shows the desire and the capacity to become a scientist should be ensured the opportunity to do so," the Foundation emphasizes. No lesser goal will enable us to remain a first-class scientific and technological power, the Foundation warns.

Investing in Scientific Progress, National Science Foundation Report NSF 61-27, has been widely read here, in the White House and elsewhere, and obviously it is making an impact. You might want to read it, too. Copies are available without charge from the Printing and Publication Section, National Science Foundation, 1951 Constitution Avenue, N.W., Washington 25, D.C.

If you're interested in concrete suggestions for planning an elementary-school science program—including selection of equipment, orienting teachers, new teaching approaches, and budgetary and procurement methods—a new Office of Education publication contains all this plus descriptions of successful programs in selected communities throughout the nation. *Science Equipment and Materials for Elementary Schools* can be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D.C., for 30c.

Institutes for All?—For its part, the HEW Department has not progressed as far as the House Education and Labor Committee in developing a specialized school-aid bill for 1962, but some discreet soundings are currently being taken behind the scenes. For example, the National Science Foundation has offered high-school science and mathematics teachers brush-up summer institutes at campuses across the country. Stipends, including extra allowances for dependents, are at least in line with normal nine-month salaries.

Some top HEW officials would like to see other teachers have this sort of opportunity to spend a hard-working but well-paid summer on campus. "Quality" is the keynote of this approach, which is advanced as the obverse of the hitherto unsuccessful "quantity" approach—that is, federal aid for more classrooms and higher salaries. Let's improve the quality of our educational system, these advocates argue, by sending teachers back to college for summer refresher courses, for example.

Occupational Outlook.—The Labor Department has issued a new edition, the fifth, of its *Occupational Outlook Handbook*, an 829-page guide to career opportunities in more than 650 occupations and 30 major industries. The Handbook presents the most recent information available on earnings and working conditions, nature of the work, training and other qualifications needed for employment, advancement and location of jobs in professional, administrative, clerical, service, and agricultural occupations. Both skilled and semiskilled jobs are covered.

Much new information has been

added to the new edition, including new chapters on business administration, performing artists, factory jobs, jobs in the apparel industry, and new statements on such professional and technical jobs as geographers, astronomers, dental laboratory technicians, and photographers. A new introductory chapter —"Looking Ahead to Earning a Living"—discusses long-range occupation and industrial employment trends and their implications for career planning.

The new Handbook, which is illustrated with 212 photographs and 39 charts, may be purchased at $4.50 a copy from the Superintendent of Documents, Government Printing Office, Washington 25, D.C., or from the regional offices of the Bureau of Labor Statistics in Atlanta, Boston, New York, Chicago, and San Francisco. Sections of the Handbook have been reprinted as 101 separate pamphlets —the Occupational Outlook Report Series. A list of titles and order forms are available from the Occupational Outlook Service, Department of Labor, Washington 25, D.C.

More Emphasis on Art.—Plans to encourage greater emphasis on education in the arts were announced in December by U.S. Commissioner of Education McMurrin. He named Harold Dean Cater, authority on many aspects of American history, as consultant in the Office of Education to work on this new emphasis.

"It is important," Commissioner McMurrin said, "that painting, drama, architecture, and the other arts be given a prominent place in the educational process at all levels." He declared that America's contribution to world civilization will be judged not only by its political, economic, and technological creativity but also by the extent to which its people appreciate and contribute to the arts.

Half Failed.—About half the 200,000 school children participating in pilot programs for the President's Council on Youth Fitness failed the minimum test for physical fitness, which includes three exercises—pullups to measure arm and shoulder strength, situps to measure flexibility and abdominal strength, and squat thrusts to measure agility.

Although the pilot programs produced conclusive evidence on the poor physical state of our youth, they also suggest that marked improvement can be made through the recommended program of the President's Council. In Muskogee, Okla., where 6,557 students took the minimum test at the beginning of the school year, 47 percent failed. Six weeks later, after participating in the daily activities and exercises of the recommended plan, those who failed were tested again. This time, there was a 24 percent improvement.

The Council distributed 250,000 copies of its booklet, *Youth Physical Fitness—Suggested Elements of* *a School-Centered Program,* to all school administrators and school-board presidents before school opened last fall. Additional copies may be obtained for 40c from the Superintendent of Documents, Government Printing Office, Washington 25, D.C.

The Council quotes statistics from a U.S. Office of Education study that show:

Less than half our elementary schools have a multipurpose room or a similar space for physical education. Only a few elementary schools have gymnasiums.

Less than half our elementary schools have all-weather outside areas and less than one-fourth have any developmental equipment indoors.

Only 28 percent of our secondary schools have adequate indoor physical-education facilities, and only 31 percent have "adequate" outdoor areas.

Half to three-fourths of the nation's young people do not now have a daily physical-education period. Only one state, California, now requires daily periods of physical education in grades 7 through 12.

President Kennedy continues to manifest his concern for improvement of physical fitness through the schools: "To get two men today, the United States Army must call seven men," he told the National Football Foundation recently. "Of the five rejected, three are turned down for physical reasons and two for mental disabilities. To get the 196,000 additional men that we needed for Berlin, the Government had to call, therefore, 750,000 men —and the rejection rate is increasing each year.

"I hope that every school district in this country will adopt our minimum program. I urge every parent to support the program and his own children's participation in it. I urge our colleges and universities to lay down basic standards of physical fitness. I urge the nation's community recreation centers to provide more opportunity for those who no longer attend school," he said. "In short, what we must do is literally change the physical habits of millions of Americans—and that is far more difficult than changing their tastes, their fashions, or even their politics.

"I do not suggest that physical development is the central object of life, or that we should permit cultural and intellectual values to be diminished, but I do suggest that physical health and vitality constitute an essential element of a vigorous American community," said the President, citing Rhodes Scholars and Phi Betas who were also All-Americans.

Then he quoted Thomas Jefferson, when he said, "Not less than two hours a day should be devoted to exercise." "If a man who wrote the Declaration of Independence, was Secretary of State and twice President could give it two hours, our children can give it 10 or 15 minutes," Mr. Kennedy concluded. ●

• Educational News •

CHANGES IN SUPERINTENDENCIES:

Lansing, Mich.: **Dwight M. Rich,** who has been with the Lansing schools 39 years, has announced his retirement, effective at the end of the school year.

Waterloo, Ia.: **Jack M. Logan** will retire July 1, 1962.

COLLEGE PRESIDENTS:

New York University, N.Y.: **James McNaughton Hester,** dean of the graduate school of arts and science, has been named successor to **Carroll V. Newsom,** resigned. Hester, 37, will be the youngest president in NYU's 130-year history.

Teachers College, Columbia University, New York, N.Y.: **John H. Fischer,** now dean, will succeed **Hollis L. Caswell** on his retirement in July.

Virginia Polytechnic Institute, Blacksburg: **T. Marshall Hand, Jr.,** dean of arts and science, Kansas State University, will succeed **Walter S. Newman,** on his retirement in June.

TEACHER-TRAINING INSTITUTIONS:

University of Oklahoma, Norman: **John W. Renner,** formerly associate executive secretary of the National Science Teachers Association, is now associate professor in the college of education.

Lehigh University, Bethlehem, Pa.: **John A. Stoops,** assistant regional superintendent, Neshaminy School District, Langhorne, Pa., has been appointed head of the department of education, succeeding **Harold P. Thomas.** Mr. Stoops will assume his new duties in July.

Teachers College, Columbia University, New York, N.Y.: **Richard H. Lindeman,** formerly of the University of Minnesota, has been named associate professor of education in the department of psychological foundations and services.

Boston University, Mass.: **Max B. Goodson** has announced he will relinquish his duties as dean of the school of education, effective June 1, to become head of the secondary-school editorial department of Ginn and Co., publishing firm. He will continue as a professor of education at the University.

University of Alabama, University: **Dwain M. Estes,** formerly assistant professor of education, Texas A & M College, has been named associate professor of educational administration.

OTHER CHANGES AND
APPOINTMENTS:

John C. Weaver, dean of the graduate college, State University of Iowa, Iowa City, has been named chairman of the new Council of Graduate Schools in the United States, which was organized in February 1961.

Mark C. Schinnerer, who retired in August as superintendent, Cleveland, Ohio, has been named special assistant to the New York State Education Department on New York City School reorganization.

George V. Allen, formerly director of the U.S. Information Agency, has been elected chairman of the U.S. National Commission for Unesco.

Irving L. Iverson, assistant executive secretary, North Dakota Education Association, has been named executive secretary, succeeding **Paul A. Dalager** on his retirement in July.

Frederick M. Raubinger, New Jersey state commissioner of education, is the new president of the Council of Chief State School Officers. **A. W. Ford,** Arkansas state commissioner of education, is president-elect.

James I. Robertson, Jr., of State University of Iowa, Iowa City, has been named executive director of the National Civil War Centennial Commission, Washington, D.C., succeeding **Karl S. Betts.**

Resistance to Bond Issues

ELEMENTARY and secondary school bond issues received rough treatment from the nation's voters during the first six months of 1961, according to latest figures just released by the Investment Bankers Association in Washington and reported in *School Boards*.

The figures show that during this period, $444,723,000 in school bond issues were approved by the voters, representing 68 percent of the issues proposed to them. In 1960, the approval rate was 82 percent for the same period. A steady decline has been evident since the tail end of last year, which set a record high for school bond approvals.

With bond approvals so far in 1961 running 57 percent below last year, the IBA predicts the full year totals will be far short of the 1960 record of $1,756,975,000 in school bonds authorized by the public. Municipal bonds in general—for roads, sewers, utilities, recreation, etc.—have fared better than education bonds.

Free Textbook Ruling

THE Oregon Supreme Court, in a six-to-one decision, has ruled that a 20-year-old Oregon law permitting school districts to provide free textbooks to pupils in parochial schools is unconstitutional. The ruling upset a lower court decision which upheld the law on the ground that the books were provided for the pupils, not the schools.

Oregon is one of four states furnishing free textbooks to parochial school pupils. The other states are Mississippi, Louisiana, and New Mexico. Louis P. Minear, Oregon state superintendent of public instruction, has estimated that Oregon's school districts have been spending about $200,000 a year on texts for parochial schools.

Essay Contests Dropped

ESSAY contests will be dropped next year from the official list of approved national contests of the National Association of Secondary School Principals.

In announcing the move, Albert Willis, chairman of the NASSP committee on national contests and activities, said, "This decision does not mean that schools are opposed to good writing. But if an essay contest is to be effective, it requires careful supervision. It is our feeling that principals and teachers already have a full program, and it is not educationally justifiable to impose time-consuming contests on them."

Ford Foundation Grant

THE Ford Foundation in December announced a grant of $5 million to Educational Facilities Laboratories, New York, for expanded support of its research and information program on the planning and use of school and college facilities.

Educational Facilities Laboratories was established by the Ford Foundation in 1958 with a $4.5 million grant to support experiments in the design of education facilities and to serve as a national information center on buildings and equipment. The new grant will continue the Foundation's support on an expanded basis through 1966.

Desegregation Statistics

The South has 7.3 percent of its Negro enrolment attending public schools with whites this school year, according to the new edition of *Statistical Summary*, published by the Southern Education Reporting service.

The figures show that the 17 Southern and border states, plus the District of Columbia, now have 233,509 in biracial schools, an increase of 19,977 since last May. Negro students this year comprise 23.8 percent of the region's 13,477,937 public-school enrolment. Although 28.9 percent of the region's Negroes are in desegregated districts, only 25.2 percent of these 927,000 Negroes actually attend desegregated schools, the report shows.

State Officers for Federal Aid

Resolutions approving general federal aid to education were adopted by the Council of Chief State School Officers at the November annual meeting of the organization in Baltimore, Md.

The resolutions expressed concern that federal support funds be made available to the states in such a way that state and local control of education will be strengthened. They said that federal funds appropriated should be subject to management by state educational agencies and local boards of education, with state and local determination of the educational purposes for which the funds may be used.

The Council also went on record as being in favor of permanent, broad-purpose, federal financial support, rather than by limited, emergency federal aid for special purposes.

New Center at Peabody

A Learning Resources Center has been established at George Peabody College for Teachers to include Peabody's curriculum laboratory, audio-visual services and instruction program, closed-circuit television teaching center, and electronics maintenance department.

The center, which is said to be the only one in existence that includes all these components, is under the direction of Curtis Ramsey. Plans are now under way to develop three new courses for inclusion in the Peabody curriculum. They are: teaching machines and programed instruction, practicum in educational television instruction, and administration of learning resources centers.

Geography Study

Ways of improving geography teaching in the high schools was discussed at the recent annual meeting of the Association of American Geographers at East Lansing, Mich.

The discussion centered around a proposal made by a joint committee of the AAG and the National Council for Geographic Education for a new course of geography study in the high school. The proposal, supported by a grant of $55,000 from the Fund for the Advancement of Education, will be given to an 11-man working committee for study and revision.

Changes in Social Studies

MEMBERS of the National Council for the Social Studies, at their annual convention in Chicago in November, called for a major investigation of the social-studies curriculum in elementary and secondary schools.

They adopted a resolution asking for a curriculum investigation, national in scope, oriented to all grade levels, and involving representation from the scholarly disciplines, teacher-education institutions, and social-studies classroom teachers. This would be the first thoroughgoing overhaul of the social-science curriculum in 40 years. The resolution adopted also asked NCSS directors to seek foundation funds to carry out the investigation.

The program of the Chicago conference was centered around a joint study of the social-sciences curriculum now underway by the NCSS and the American Council of Learned Societies. In this study, a group of scholars have prepared "position papers" describing what they regard as essential knowledge from their individual disciplines which should be incorporated into social studies as taught in secondary schools.

DATES OF THE COMING MONTHS:

Feb. 14-17, American Association of Colleges for Teacher Education, Chicago, Ill.

Feb. 17-21, American Association of School Administrators, Atlantic City, N.J.

Feb. 24-28, National Association of Secondary-School Principals, St. Louis, Mo.

Mar. 4-7, Association for Higher Education, Chicago, Ill.

Mar. 4-8, Association for Supervision and Curriculum Development, Las Vegas, Nev.

Mar. 9-14, National Science Teachers Association, San Francisco, Calif.

Mar. 24-28, Department of Elementary School Principals, NEA, Detroit, Mich.

Mar. 25-30, Department of Audio-Visual Instruction, NEA, Kansas City, Mo.

April 6-10, American Association for Health, Physical Education, and Recreation, Cincinnati, Ohio.

April 8-14, National Library Week.

April 12-14, National School Boards Association, St. Louis, Mo.

April 15-18, National Council of Teachers of Mathematics, San Francisco, Calif.

April 16-19, American Personnel and Guidance Association, Chicago, Ill.

April 22-27, Association for Childhood Education International, Indianapolis, Ind.

April 24-27, National Catholic Educational Association, Detroit, Mich.

April 24-28, Council for Exceptional Children, Columbus, Ohio.

May 20-23, National Congress of Parents and Teachers, Portland, Ore.

Slums and Suburbs: A Commentary on Schools in Metropolitan Areas. James B. Conant. New York: McGraw-Hill Book Co., Inc., 1961. Pp. viii + 147. Hardbound $3.95; paperbound $1.95.

"I am convinced that we are allowing social dynamite to accumulate in our large cities," says Dr. Conant. "I am not nearly so concerned about the plight of suburban parents whose offspring are having difficulty finding places in prestige colleges as I am about the plight of parents in the slums whose children either drop out or graduate from school without prospects of either further education or employment."

With this kick-off, the author charges spiritedly into the problems of the metropolitan slum area school. Pointing out that these school problems are inseparably linked with social and economic difficulties that are responsible for the slum conditions, he takes a long look at the distressing history of the Negro and his educational problems.

Contrasting the financial support of slum and suburban schools, Dr. Conant points out that suburban schools spend twice as much per pupil as is spent on slum schools. While he calls for additional expenditures to upgrade slum schools, he is convinced that the slum conditions, not the color of the children, determines the low level of school achievement. He reports that instead of finding blackboard jungles, these schools are doing a magnificent job with high morale, tight discipline, and imaginative teachers and principals. Lack of employment opportunity is the real culprit for young people in slum areas.

The author calls for a more realistic guidance program for suburban schools where often 80 percent of the graduates go on to college and frequently the parents' ambitions outrun the child's abilities. An academic inventory form for bright students, which is based on the programs of six well known college-oriented high schools, is provided to use as a check against his recommendations.

Dr. Conant concludes his provocative presentation with 17 recommendations for improving education in both slums and suburbs.

Both slum and suburban schools should profit from this candid and documented report, which educators should surely read and interested laymen will no doubt push onto the best-seller lists.

The Making of a Modern Educator. William Van Til. Indianapolis, Ind.: Bobbs-Merrill Company, Inc., 1961. Pp. 251. $1.95.

This is a collection of essays on experiences in and out of the classroom that tell the story of William Van Til's career in education. His career began in 1933 when, as a graduate from Columbia University, Van Til, an English major, began teaching in a New York school for delinquent boys. The salary was $75.00 per month.

From that beginning in 1933 until March 1960 when, as president-elect, Van Til addressed the members of the Association for Supervision and Curriculum Development, the author reports his educational experiences in an entertaining, informative, and thought-provoking style.

The narrative ranges wide and penetrates deep. There is a sharing of personal thoughts and experiences, such as a young teacher visiting Europe with his bride during the years of the emergence of Nazi power. There is a relating of an active mind participating in and reflecting on such social issues and conflicts as racial segregation, the McCarthy era, and juvenile delinquency.

The book should be effective in achieving the aim Van Til expresses in the preface:

"The angry men who write books on education should be granted no monopoly; anger is a poor substitute for personal acquaintance with elementary and secondary schools. My earnest hope is that my book will make some contribution to a more relaxed, a better humored, and a better informed discussion of education."

Philosophies of Education. Edited by Philip H. Phenix. New York: John Wiley & Sons, Inc., 1961. Pp. 137. $1.90 (paperbound).

This book contains sketches of contemporary viewpoints on education, based on a series of educational television programs produced by KTCA-TV (Minneapolis-St. Paul) for the National Educational Television and Radio Center.

H. Gordon Hullfish presents the experimentalist view, and Harry S. Broudy, a classical realist view. Education for life adjustment is discussed by Florence B. Stratemeyer, and Arthur Bestor discusses education for intellectual discipline. The Protestant viewpoint is given by Merriman Cuninggim; the Roman Catholic, by Robert J. Henle; and the Jewish, by Eugene B. Borowitz. Other educators who present their views are Arthur T. Jersild, Ernest M. Ligon, Russell Kirk, Theodore Brameld, Harold Stoke, and R. Freeman Butts.

Voluntary Statewide Coordination in Public Higher Education. M. M. Chambers. Ann Arbor, Mich.: University of Michigan, 1961. Pp. xi + 83.

This is a concise review of the various forms of administrative control of public institutions of higher education in the various states. The information is presented in a brisk, confident manner.

The author presents a strong case for a flexible form of administration, cautioning against rigid one-department control on a statewide basis. The various methods of administration among the states are examined and criticized, the problems, the successes, and the shortcomings are noted.

Chambers presents evidence to call attention to what he interprets as a trend toward voluntary statewide coordination in public education, and comments: "If . . . my observation is correct, then the development of this trend is a major event of the mid-twentieth century, and may well mark a turning-point of historic significance in the evolution of optimum relations between state governments and state universities."

Tomorrow's Illiterates — The State of Reading Instruction Today. Edited by Charles C. Walcutt. Boston: Little, Brown and Company, 1961. Pp. xvii + 168. $3.95.

This is the second book in a series being published by the Council for Basic Education. As with the first publication, *The Case for Basic Education*, edited by James D. Koerner, *Tomorrow's Illiterates* is a collection of essays and reports by a number of writers examining critically the methods and practices employed in our schools today. Reading instruction is the topic.

The contents present a case for phonics. The contributors discuss the various methods and techniques of teaching reading and make judgments as to their effect on pupils. Many will disagree with their conclusions.

Charles Child Walcutt, who edited the book, is professor of English at

Queens College, N.Y. The foreword was written by Jacques Barzun.

Other Materials Received:

Elementary

Be a Better Reader, Book VI. Nila Banton Smith. Englewood Cliffs, N.J.: Prenctice-Hall, Inc., 1961. Pp. 208. $2.04.

Let's Imagine Thinking Up Things. Janet Wolff. New York: E. P. Dutton & Company, Inc., 1961. Pp. 32. $2.95. An "Imagination" book.

A Trip to Mexico. Terry Shannon. Chicago: Childrens Press, 1961. Pp. 32. $2.50. A book of easy beginning Spanish. Illustrations by Charles Payzant.

Learn to Listen, Speak, and Write. Books 1/1, 1/2, and 2/1. Marion Monroe, Ralph G. Nichols, and W. Cabell Greet. Chicago: Scott, Foresman and Company, 1961. $.68. Teacher's edition available. Also *My Practice Pad* for each book, $.40.

The True Book of Weather Experiments and The True Book of Magnets and Electricity. Illa Podendorf. Chicago: Childrens Press, 1961. Pp. 47 each. $2.00 each.

Nature Study; Facts and Activities. Marjorie Seymour. **Skill Games to Teach Reading.** Richard H. Bloomer. Dansville, N.Y.: F. A. Owen Publishing Co., 1961. Pp. 48 each. $1.25 each.

Gifts Children Can Make. Ruth Karb. **Rainy Day Games and Activities.** James Torpey, Dorothy Gehrt, and Frank LeGere. Dansville, N.Y.: F. A. Owen Publishing Co., 1961. Pp. 48 each, $1.25 each.

Secondary

Labor-Management Dynamics. Detroit: Board of Education, 1961. Pp. xiv + 288. $3.50.

Offerings and Enrollments in Science and Mathematics in Public High Schools, 1958. Kenneth E. Brown and Ellsworth S. Obourn. U.S. Office of Education Bulletin No. 5, 1961. Pp. ix + 87. Available from U.S. Government Printing Office, Washington 25, D.C. $.35.

Basic Mathematics, Vol. 2. Norman H. Crowhurst. New York: John F. Rider Publisher, Inc., 1961. Pp. vi + 138. $3.90. Develops algebra, graphs, geometry, and trigonometry as ways of thinking in mathematics.

Physics, The Pioneer Science. Vol. 1, Mechanics, Heat, Sound. Vol. 2, Light, Electricity. Lloyd W. Taylor. New York: Dover Publications, 1961. Pp. xii + 395 + xliv and vi + 450 + xliv. $2.00 each volume.

Modern Elementary Algebra. Eugene D. Nichols and Wagner G. Collins. New York: Holt, Rinehart and Winston, Inc., 1961. Pp. ix + 402. $4.08.

Life Science; The World of Living Things and Science: Discovery and Progress. Ira C. Davis, John Burnett, and E. Wayne Gross. New York: Holt, Rinehart and Winston, Inc., 1961. Pp. viii + 390. and xi + 595. $3.80 and $4.88, respectively. Science books for the junior-high grades.

Modern Speech. John V. Irwin and Marjorie Rosenberger. New York: Holt, Rinehart and Winston, Inc., 1961. Pp. vii + 567. $4.60.

College

Enrollment Projections for Higher Education, 1961-1978. Ronald B. Thompson. 1961. Pp. xi + 36. Available from American Council on Education, 1785 Massachusetts Ave., Washington 6, D.C.

College without Classes: Credit through Examinations in University Adult Education. A 48-page booklet available from Center for the Study of Liberal Education for Adults, 4819 S. Greenwood Ave., Chicago 15, Ill.

Teacher Supply and Demand in Universities, Colleges, and Junior Colleges, 1959-60 and 1960-61. NEA Research Report 1961-R12. Pp. 88. Single copies free from NEA Research Division, 1201 Sixteenth St., N.W., Washington 6, D.C.

GUIDANCE

Careers for Women in the Biological Sciences and Careers for Women as Life Underwriters. Women's Bureau, U.S. Department of Labor, Bulletins 278 and 279. Pp. vi + 86 and vi + 35. Available from U.S. Government Printing Office, Washington, D.C. $.40 and $.20, respectively.

Training for Students in the Food Industry. U.S. Office of Education, Vocational Division, Bulletin No. 290. Pp. vi + 23. Available from U.S. Government Printing Office, Washington, D.C. $.15.

Financing Education for Our Changing Population. Washington, D.C.: National Education Association, 1961. Pp. 111. $1.00.

GENERAL

Schools for Team Teaching; Profiles of Significant Schools. Evans Clinchy. New York: Educational Facilities Laboratories, 1961. Pp. 64. Free.

Germany; A Modern History. Marshall Dill, Jr. Ann Arbor, Mich.: The University of Michigan Press, 1961. Pp. x + 467. $8.75. One of the History of the Modern World series.

Education in Democracy: Social Foundations of Education. Philip W. L. Cox and Blaine E. Mercer. New York: McGraw-Hill Book Company, 1961. Pp. xviii + 570. $6.95.

Great Ideas of Modern Mathematics: Their Nature and Use. Jagjit Singh. New York: Dover Publications, Inc., 1961. Pp. viii + 312. $1.55.

Fun with Brand-New Games. Allan and Paulette Macfarlan. New York: Association Press, 1961. Pp. 255. $3.50.

The Death of Adam; Evolution and Impact on Western Thought. John C. Greene. New York: New American Library, 1961. Pp. 382. $.95, paperback.

Music Dictionary. Baltimore, Md.: Ottenheimer Publishers, Inc., 1961. Pp. 186. $1.00. A vest-pocket edition containing nearly 5,000 terms.

Ex Litteris

(comments from our readers)

Dear Sir:

. . . I have just read your publication for the first time from cover to cover. I would congratulate you; your publication meets a very great need.

William M. Powers,
Superintendent,
Needham, Mass.

Dear Sir:

I feel the DIGEST largely overlooks the contributions and needs of private education in the United States.

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Dear Sir:

This is a belated "thank you" for publishing the splendid condensation of my article "What Have We Accomplished in Reading?" It always amazes me to see how well you can say practically everything that I say in one-quarter of the number of words. I was much pleased with your version of the article.

The DIGEST is rendering a great service to us busy educators. My best wishes to you for its continued success.

Nila B. Smith,
Professor of Education,
New York University.
New York, N.Y.

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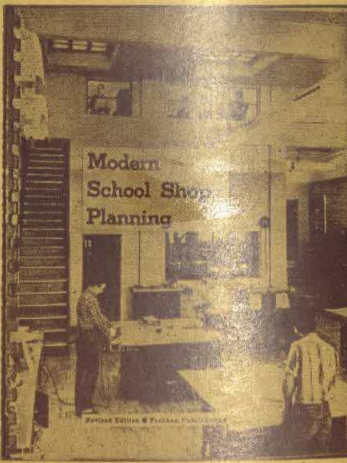

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The Education Digest

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Volume XXVII *February 1962* **Number 6**

The Education Digest

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Editorial and Circulation Office: 416 Longshore Drive, Ann Arbor, Michigan.

Advertising Sales Offices:
Ann Arbor, Mich.—416 Longshore Drive, telephone NO 8-7205.
Chicago, Ill.—Didier & Broderick, Inc., 5809 Lincoln Ave., telephone LO 1-5284.
New York 17, N.Y.—Macintyre-Simpson & Woods, 101 Park Ave., telephone LE 2-0020.
Los Angeles 5, Calif.—The Jess M. Laughlin Company, 711 S. Vermont Ave., telephone DU 3-7697.

Published monthly, September through May, by Prakken Publications, Inc., 416 Longshore Drive, Ann Arbor, Michigan. The annual index is included in the May issue. The contents of THE EDUCATION DIGEST are listed in the **Education Index.**

Subscription Rates: $5.00 a year; 2 years, $9.00; 3 years, $12.00; foreign, $5.50 a year. Single copies, 60c.

Second-class mail privileges authorized at Ann Arbor, Michigan, and additional entry authorized at Oxford, Ind. Printed in the United States of America.

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Volume XXVII FEBRUARY 1962 Number 6

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Some Fundamental Defects

Let's Abolish IQ Tests

JOHN KORD LAGEMANN

In The PTA Magazine

JUDGMENT day comes early for American children. In many grade schools they are sorted out for success or failure on the basis of IQ tests. The 5 to 10 percent scoring highest are told, in effect, "The fate of the nation is in your hands," and are set on the academic highroad leading to college and career. A similar number with low IQ's are labeled "slow" and are academically sidetracked. The rest are lumped together as "average" and given instruction to match.

This kind of labeling sets up what educators call the selffulfilling prophecy. A high IQ helps to assure a child the interest of his teachers in furthering his education. A low IQ may exclude him from the opportunity to discover and develop his talents. An "average" score may give him an image of himself as an unpromising person, and he may act accordingly.

Today the test industry is booming. The federal government alone is spending millions to help states finance testing programs to identify students with the brainpower to benefit from college. It is true that teachers in recent years have become more sophisticated and cautious about their use of IQ tests. But the fact remains that these tests continue to be major factors in making important decisions about what happens to the children. Many teachers try conscientiously to deal with children as individuals and to discount test scores. But as one of them told me, "Once you know a child's IQ, you tend to see him through it. You may try to be impartial and tell yourself to look for other qualities, but that score is on his record."

John Kord Lagemann is a former weekly newspaper publisher. Now a writer, his material appears in many national magazines. Reported from The PTA Magazine, *LVI (December 1961), 7–10.*

A growing number of psychologists and educators, taking a sober second look at standardized group IQ tests, have concluded that the defects are numerous and basic and that the tests are not the infallible precise yardstick they were once thought to be. The following will describe some of the fundamental defects.

DEFECTS

Unreliability.—Test scores, often treated as exact measures of worth, can be wildly erratic. Glen Heathers, director of New York University's Experimental Teaching Center, says, "With some children, IQ may vary as much as 40 points from one period of their life to another."

Inaccuracy.—The written group tests (a whole classroom taking them at the same time) are the tests most commonly used in high schools. They are short, about half an hour, and contain only a limited number of short questions. This is a crude method for measuring something as subtle and complex as intelligence. The answers to a few questions will mean big differences in scores.

"IQ's based on the usual group tests are worse than meaningless; they are seriously misleading," says Kenneth B. Clark, psychology professor at New York's City College. "An IQ score is meaningful only under rigorously controlled conditions of individual testing by a specially trained psychologist who can draw out the best in a child and who can remain sensitive to the level of the child's motivation during testing."

Culture-bound. — Despite the original intention of measuring only "native ability," group IQ tests inevitably favor the children of well-educated parents. The tests rely heavily on vocabulary in which children from well-educated homes have an edge, even though it is claimed that environmental influences are excluded. In prosperous suburbia, one out of four children scores above 125; in poor neighborhoods, only one out of 16. High-school grades aside, the IQ sorting-out process gives relatively well-off children an advantage toward college preparation and scholarships, while ruling out a disproportionate number of bright but needy youngsters whose gifts are never discovered.

Favor limited kind of intelligence.—Even more serious, the tests favor the conformist over the creative mind. For most laymen it comes as a shock to learn that intelligence tests don't measure a child's innate mental ability. "What an aptitude test (and this includes IQ tests) does measure is the quality of a pupil's performance on a number of mental tasks," says Henry S. Dyer of the Educational Testing Service in Princeton, New Jersey. The score "tells how well he can cope with tasks like those on the test at the time he takes the test, and *it tells nothing more.*"

Intelligence is, in fact, a cluster of many abilities, and traditional IQ tests measure only a few of them. Recently J. P. Guilford, professor of psychology at the University of Southern California, analyzed IQ tests to determine which useful intellectual abilities the tests measure and which they do not. He asked a group of top scientists to evaluate and rank according to their importance in scientific research a list of 28 specific mental abilities. Number one on the scientists' list was "the ability to abandon conventional problem-solving methods that have become unworkable and to think of original solutions." (An example is putting the eye in the *point* of the needle to make possible the invention of the sewing machine.) This ability is not measured by IQ tests.

Another non-IQ aspect of intelligence picked by the scientists was the ability to recognize problems, an ability someone once defined in Einstein as "inability to accept the obvious." In fact, except for "general reasoning," which ranked third on all the scientists' lists, all IQ test factors ranked below twentieth in importance.

MEASUREMENT LIMITED

Probably the most interesting of the newly-found defects in standardized IQ tests is the fact that they favor one limited kind of intelligence—the kind that is fast and sharp and knows the correct answers – while they discriminate against such central aspects of intelligence as imagination, creativity, and insight.

When asked to define language, a high-IQ student wrote, "It is a form of manner of expression." A high-creativity student wrote, "Language is the window through which we see experience," an answer that would never get by in a standard test.

Group IQ tests also put a premium on speed. They favor the student who thinks off the top of his head and merely recognizes a conventional right answer. They penalize the more reflective child who can think of several alternative answers—and must pause to decide which is expected on the test.

At the University of Chicago, Benjamin Bloom, former chief of the Examiner's Office, in questioning the whole philosophy behind IQ tests, said, "We are in real danger of creating an IQ elite by singling out as future leaders the small proportion of our youth who have the special abilities needed to do well on standardized tests. We are screening out and throwing away other qualities we may need even more to guide us safely through the space age—not only character traits like enterprise and daring but basic mental abilities not even recognized by the tests."

On standard IQ and aptitude tests the problems call mainly on vocabulary, number ability, memory for ideas, general reasoning, ability to visualize spatially, and speed of perception. These six mental abilities are closely tied in with what Dr. Guilford has named convergent thinking, the kind which seeks a recognized best or conventional answer to every problem. The more creative person uses what Dr. Guilford calls divergent thinking, in which the goal is to produce a variety of tenable but original ideas. Dr. Guilford and others have identified more than 50 mental abilities connected with divergent thinking which are never called on by IQ tests.

What, in fact, do standardized IQ or aptitude tests tell you about an individual that you cannot find out by looking at the grades he has earned by actual work and by observing him at work and play? I asked this question of dozens of educators and psychologists. The answer actually boils down to "Nothing."

IF ABANDONED

What would happen if standardized tests were abandoned abruptly and completely? Many countries, including the Soviet Union, have considered and rejected them. It is only during the last 50 years that the tests have been used here, and we managed quite well previously without them.

Certainly abandonment of standardized testing would upset our entire sorting-out process in elementary schools and the overreliance on machine-scored tests to select high-school students for college admission and scholarships. It would mean that teachers and school administrators would have to deal once more primarily with individuals rather than numbers and depend on their own judgment with all its limitations. But which is worse: to use individual human judgments with their known fallibility or to use an impersonal system that operates logically from a false premise?

That premise is that giftedness is confined to the small percentage of the population who get the highest test scores. If this were true our chances of national survival would be slim. In reality we have just never learned to recognize and develop more than a fraction of our potential.

Consider the evidence presented by Dean George B. Smith of the University of Kansas. Dean Smith conducted a retrospective study of recent graduates, many of whom would have been rejected on the basis of below-average scores on IQ and other conventional screening tests if the University had used the informal practice of a "cut-off point" that is in effect at many colleges and universities.

Dean Smith says, "In the classes of 1955-1959 alone, the loss to the state and nation would have included 202 teachers, 176 engineers, 22 journalists, 31 lawyers, 25 doctors, and 43 pharmacists." And in that group, who would have been denied entrance to college on the basis of standardized test scores, were several who graduated from the University with top honors.

As the National Education Association states through a commission of distinguished educators, "The rational powers of any person are developed as he uses them successfully. There is no known upper limit to what people are capable of doing with their minds." •

Different Value Base Used

Team Teaching: An Assessment

HAROLD D. DRUMMOND

In Educational Leadership

INTEREST in team teaching has grown rapidly the past few years. At the moment it appears that the instructional staffs in hundreds of secondary schools and in many elementary schools are doing something which they call team teaching. Exactly what are they doing?

The education profession has suffered for years because it has lacked precise terminology. Team teaching is another example—the term already has almost as many meanings as there are school systems working with it. At present there appear to be at least the following five types in various stages of development and experimentation. Variations from these types are myriad.

1. *A hierarchy of teaching assignments.* Several school systems have attempted to develop instructional teams based on a specified hierarchy of teaching assignments. This approach usually employs a team leader, a number of senior teachers, regular teachers, part-time teaching assistants, and clerical aides. The leader usually receives a salary commensurate with leadership responsibilities and often is given a lighter teaching load. The senior teachers are at a salary level above that of the regular teachers, who are often teachers without experience or are new to the system. To cover the costs of increased salaries for leadership and clerical help, additional pupils are assigned to the team—usually at least one extra class section for three or four certified teachers.

2. *Coordinate- or co-teaching.* In systems using this approach, teachers are assigned to a large group of pupils. The teachers plan together as peers how best to provide for the pupils assigned to the team. As in the "hierarchy" plan, instruction is sometimes provided to the entire group by one teacher. Sometimes one teacher will work with a large number of the group while other teachers work with a small group of the gifted or with those needing remedial instruction. At times each of the team's teachers may work with a normal-sized group of about 30 pupils. Attempts are made to utilize to the fullest

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extent the strengths of each teacher.

3. *Team teaching across departmental lines.* Several junior-high and senior-high schools have devised schedules for instructional teams which provide a two- or three-period block of related content (e.g., American history, American literature). Normally, students have one period with, say, the social-studies teacher, followed by one period with the English teacher. Often, when desirable, the two groups are combined for the double period—as for a field trip, orientation to a new unit, lecture by an outstanding resource person, visual aids, and the like. The teachers have at least one free period at the same hour so that joint planning is possible.

4. *Part-time or full-time helpers.* Many descriptions of team teaching indicate a fairly standard teaching role for the regularly certified teacher, but seek to increase his effectiveness by providing help of various kinds, including instructional secretaries, theme correctors, laboratory assistants, etc. Teachers are usually asked to accept responsibility for a larger number of pupils to permit employment of additional help without substantial increases in instructional costs. The teacher retains active control of the planning and most instructional phases of teaching, utilizing the helpers for the more routine tasks.

5. *Trading groups.* For many years, elementary-school teachers have been saying, in essence, "If you'll take my art—you're good in it and I'm not—I'll take your music." Until recently such "trading" was rare in the secondary schools. It may be growing now as a result of staff-utilization studies. Several reports indicate that two or three teachers of a particular subject, such as general science, plan their work so that they trade groups for particular units of content. The trading is done, ostensibly, to make certain that the groups receive instruction from the best-qualified teacher of the team, and to ensure that teachers have an opportunity to provide instruction geared to their interests and competencies.

ASSESSMENTS

Any assessment of educational practices is of necessity made from a value base. In most published reports, attempts to assess practices in team teaching utilize three types of data: achievement as measured by standardized or by locally-constructed tests, teacher opinions (sometimes buttressed by student and parent opinions), and per-pupil costs.

The data collected and reported generally indicate: Students do as well or perhaps a little better on standardized tests when taught by teaching teams. Teachers, generally, are willing to continue the team approach. Students and their parents generally favor what has been tried. Costs rise slightly.

The assessment which follows, also made from a value base, is developed on the following assumptions: (*a*) learning of high quality requires interaction between the teacher and the learner and between the learner and other learners; (*b*) high-quality learning is more probable when teachers are patient, understanding, intellectually alert, and free to make decisions based on their best professional judgment; (*c*) what is learned must be used (more functionally than on an examination) or before long it will not be known.

These assumptions eliminate cost as function of quality because the writer assumes that this nation *can* afford instruction of high quality for its children. The assumptions also eliminate teacher opinions as expressed to administrators and supervisors; what teachers consider to be good teaching may not result in the most effective learning. The focus should be on the *learning process,* not on teaching.

The assumptions also eliminate achievement as measured by tests. Teachers know what most tests contain. Using almost any organizational structure they can make sure that the learners will make about average gains.

COMMENTS ON "ADVANTAGES"

Following are nine "advantages" consistently reported for team teaching. In each instance, the "advantages" are accompanied by some comments based on the value orientation of the writer.

Few pupils are limited to the instructional competence of a single teacher at a grade level or in a department at the secondary level. As a result, few teachers get to know individual pupils as well as in traditional arrangements. Interaction between the superior teachers and the learners (especially in the hierarchal plan) is minimal. Personal contacts of learners with teachers tend to be limited to teachers of lesser competence and experience.

Persons most highly qualified provide instruction to large groups, thus saving much time for the total staff which can be used for more effective planning and for instruction in smaller-than-average groups. The learners' questions arising during the lecture must be deferred. Moreover, what the teacher wants to teach is not necessarily what the pupil needs or wants to learn. The learner may already know what is being presented to a large group. The same problem exists with the traditional approach. Might there be a better way to teach?

In large-group presentations, better use is made of visual aids because more time by specially qualified persons can be devoted to preparation. A picture of a magnet on an overhead projector while a lecturer explains (as was shown recently in the TV report, "The Influential Americans") may result in undesirable verbalization not sufficiently based on real, first-hand experiences by the learners. Skillful presentations do not necessarily result in effective learning experiences.

More uniformity in instruction is

achieved because all students are taught by the same teachers. Uniformity in instruction is not necessarily desirable. The degree of desirability depends largely on how much flexibility is provided for the very bright students and the slow learners. Individualization of instruction, whether in traditional or team approaches to teaching, is a valid and desirable goal. To the degree that attention to individual differences is provided, the learning is likely to be effective.

Less repetition is required of teachers, especially at the secondary level where a teacher might have several sections of the same class. Repeating a lecture to several sections probably is wasteful—but getting to know the pupil is essential for interaction. Reports indicate that less discussion occurs with team teaching. Perhaps more "ground" can be covered, but that is no guarantee that more learning has taken place.

Better provisions are made for helpers—librarians, audio-visual experts, clerks, etc., to do routine tasks. Good! But it must be noted that effective coordination of such helpers takes time. My opinion is that such help could and should be provided regardless of the organizational approach.

Group size is clearly related to function. Large groups are formed for activities which are effective with large groups, and vice versa. This concept makes sense. My judgment is that the "coordinate" and the "across departmental lines" teams have the greatest possibility of built-in flexibility at this point. The "hierarchal" plan probably has the least likelihood of achieving flexibility because of the specified roles.

Students assume more responsibility for learning. With more and more large-group instruction, more and more time is given to independent study. Generally, this claimed advantage of team teaching is desirable. However, perhaps even greater independence could be achieved in other ways.

Teacher competencies are better utilized. Instruction tends to become more formal, less spontaneous. In the hierarchal plan, superior teachers lecture to large groups while learners get individual help from teachers least qualified to give it. These weaknesses are not apparent in the coordinate and interdepartmental plans where teachers operate as peers.

As of now, it appears that the worth of attempts at team teaching is not yet proven. The main value of the attempts which have been made thus far undoubtedly lies in the staff growth which has occurred as a result of the experimentation.

Experimentation should be continued, using much more sophisticated research designs so that variables can be more carefully controlled. While team teaching is being tested more carefully, some school systems should be testing other approaches to improvement of learning. •

Are Long Terms of Office Desirable?

The Perennial Board of Education Member

Fred N. Kerlinger

In School and Society

MEMBERS of boards of education are honored and extolled for lengthy board service. Ten to 20 years of service seem to make a man virtuous and seem to be considered good for education and the community. Experienced wisdom, ripe judgment, and enlightened, stable public service are some of the expressions used to characterize and praise senior board members.

This is misguided thinking, based on a dangerous educational myth. It is my belief that long tenure as a school-board member is a disservice to the community.

My belief is based on several reasons. The long-tenure myth is dangerous because it fosters the false notion that certain persons are irreplaceable and indispensable. In fact, there is probably an inverse relation between actual worth of a school-board member and his own and others' perceptions of his indispensability. More important, the indispensability notion fosters undemocratic practices by keeping a few individuals in offices that should be occupied by many individuals. Such thinking is dangerous in a democracy where the ideas of multiple leadership and multiple opportunities for leadership to arise are fundamental.

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Board of education membership should be spread widely among competent and responsible citizens. Ability is more widespread than is commonly known. Communities should be tapping this ability. The man who stays a board member for a long time, however, effectively prevents the discovery, development, and use of other men's potentialities and abilities. He does this not only by occupying a board position, but also by exercising influence in the selection of new board members, especially if he has been president for some years. Any one man has only limited knowledge of potential ability in a community, and most men favor candidates they know and trust. Thus, when board memberships are limited to a few individuals who remain overtime, new, unknown but good men have much less chance of selection as candidates.

Monopoly in board membership encourages authoritarianism in education, since it discourages a broad base of potential membership and concentrates authority. Monopoly also sets up father figures who, as time goes on, assume the role of charismatic leaders whose educational words, no matter how archaic and nonsensical, take on an almost sacred and mystical quality. Also, more authoritarians than nonauthoritarians are attracted to positions of power. Boards of education do have power. When lengthy terms are institutionalized and extolled, authoritarians have greater scope for perpetuating their power and influence.

It is often said that people are not interested in education, that they will not run for school boards. This is a convenient argument for the man who gets elected term after term. The argument neglects the fact that it is the duty of the democratic community and school system to take the initiative and to encourage, vigorously and actively, the candidacies of good men. To allow a few individuals to run again and again is to evade this duty.

Finally, long terms encourage mediocrity both on the board and in the school system. The job is difficult and complex, requiring intelligence, wisdom, and integrity. Outstanding men usually are wrapped up in their business and professions. They serve on boards of education from a sense of public responsibility. In addition to his lack of time, the outstanding man probably finds board membership irksome because of the many obstacles to the improvement of education that are usually part of the position. Therefore, when induced to serve, the outstanding man usually does so for only one or two terms.

It is the mediocre man, the time-server, who wants to stay on a board of education, because he is unlikely to do outstanding work on his own or to be highly concerned with it. He can "give" more years to school-board service. In this way, he can achieve a prominence, distinction, and sense of importance that he could attain in no other way.

LAW OF MEDIOCRITY

If it is true that mediocrities tend to get on and stay on school boards, then the "Iron Law of Mediocrity" goes into effect. The law holds that mediocre individuals tend to surround themselves with other mediocrities. The law works simply and inexorably.

To be outstanding, an organization must have at least a few outstanding individuals. These individuals struggle for organizational excellence, particularly when new members are recruited. Mediocrities, on the other hand, struggle to make the organization mediocre and to keep it mediocre. They struggle particularly hard to keep outstanding individuals out.

On boards of education, the Iron Law of Mediocrity is strengthened by long terms. The long-termer often winds up as board president. He is then potentially the most influential man in the school system, with the possible exception of the superintendent. His instinct for mediocrity will lead him unerringly to a mediocre man when, for example, a chief administrator is to be hired. And the law works when the administrator recommends teachers for appointments. His recommendations, except for occasional lapses, will be mediocre.

Several arguments have been advanced to support the policy of lengthy board terms. One, very common, is: "It takes a long time to learn the job." But, if willing to devote sufficient time to study and observation, a board member can be conversant with his policy-making role in about three or four months. Certainly he does not need to stay on a board three or more terms to become a knowledgeable board member.

A second argument is that it is difficult to get good people to stand for election to boards of education. Even if true, and I will not concede that it is, good people need to be persuaded to run for board membership. With a good system of finding, screening, and selecting candidates on the part of, say, a representative community committee and a tradition of democratic responsibility and participation, the problem of getting good people to run will, in part, solve itself. It certainly will not solve itself if a community has a tradition of restricting board membership to a relatively few individuals and groups.

The third argument is perhaps the weakest of the three. Long board terms are said to be necessary to assure continuity of policy. But the necessity of continuity of policy does not mean that the policies of one or two individuals shall be perpetuated. Continuity of policy, if desirable, can be assured by overlapping terms of the board members.

This notion of policy continuity needs examination. What continuity? Whose continuity? Sometimes a definite break in the "continuity of policy" might be healthy. The notion of continuity of policy may mean overconservative preservation of the *status quo*. At any rate, this argument does not seem to be a strong defense for long board terms.

If my reasoning is correct, it follows that long terms of office for board of education members are undesirable. They tend to constrict the democratic process and to institutionalize authoritarian oligarchies. Sentimental justifications of the monopoly of public functions such as "the grand old man," "depth of long experience given to his fellow man," and the like are used with great feeling and sincerity. They cannot conceal the hard fact that when a man occupies a board position for a long time, particularly as board president, he effectively prevents sharing of leadership and wider community participation in school affairs. Perhaps worse, he helps to entrench mediocrity and authoritarianism in education. •

A Definite Policy Is Needed

Solving the "Mess in Marks"

MAURITZ JOHNSON, JR.

In New York State Education

Mauritz Johnson, Jr., is Professor of Secondary Education, Cornell University, Ithaca, N.Y. Reported from New York State Education, *XLIX (November 1961), 12–13, 30.*

IF teachers and administrators acknowledge the validity of current indictments of marking practices, they are confronted with the formidable task of clearing away a bad mess. Somehow they must eliminate the ambiguity, the inconsistency, and the invalidity that are said to characterize the present marking system. The responsibility for developing and enforcing a well-defined marking policy clearly rests with administrators, but teachers must be prepared to participate in its formulation and cooperate in its application.

The question, then, is: What should a marking policy include? The important issues are: What purpose or purposes are to be served by this system of marks? What attributes are to be marked? What sources of evidence are to be accepted? What basis of comparison is to be used? What curricular reference are marks to have?

The policy must state which of several purposes the marks are to serve. Marks can serve motivational, informative, and diagnostic purposes—but one marking system cannot serve all three. It is necessary to decide which purpose shall be served or whether to have more than one system.

Marks are effective motivational devices with students whose homes and neighborhoods place high value on them. They have little significance for others, especially if the system makes competition hopeless for them. How much emphasis should be placed on marks in motivating students is another question. It is necessary to keep marks in reasonable perspective, but to be realistic the school must recognize existing societal values. As competition for college acceptance intensifies, the significance attached to marks will increase rather than diminish. If for no other reason than this, the elimination of irrational marking practices is essential.

A motivational marking system must take into account a student's effort or achievement relative to his ability. A purely descriptive system must not; it must describe as clearly as possible a student's accomplishment, either in comparison to that of a specified group or in terms which characterize his actual performance. Such information is intended neither to reward nor punish but to provide a basis for prediction and decision-making by pupils, their parents, and the school staff.

A diagnostic system is concerned not so much with prediction as with prescription. It is analytical in that it seeks to identify strong and weak aspects of a pupil's performance so that appropriate corrective measures may be taken.

Faculty members must decide if they wish to help pupils to grow through reward and punishment, by giving them as accurate a picture of their status as possible, or by identifying for them needed corrective actions.

In preparing its policy, the faculty must also decide whether it will limit marking to achievement in formal courses or include other aspects of pupils' performance and development. This frequently consists of various habits and traits, some related to intellectual achievement and some to moral character and social skills.

In assigning marks to these factors, it is usual to emphasize that the school is concerned with more than pupils' achievement in classes. Apparently, it is assumed pupils will take nothing seriously unless they are tested or marked on it. Still, it is better that these attributes be considered separately rather than be incorporated into achievement marks. Such contamination can only produce meaningless results. Careful consideration might well be given to the possibility that means other than marks could apprise a student of his status with respect to many of these attributes.

As to achievement, here too the occasions on which performance may legitimately be assessed need to be considered. The extremes in practice run from hinging all on a single test to marking pupils on every move they make. In exploring marking, it will be instructive to teachers to learn of the variety of factors their colleagues take into account.

COMPARISON BASES

For whatever attributes they are given, marks can only be expressed in comparative terms, unless a detailed account of every aspect of a performance is given. Several bases of comparison are possible. Achievement can be compared with that of other members of the specific group under instruction; comparison may be made with the total grade in the school or system; or comparison may be made with appropriate groups outside the system. Whatever the basis, it should be specified or the mark will tell nothing.

It may appear that another basis is the student's own apparent ability or actual previous performance. Careful reflection will reveal that these comparisons are actually second-level judgments. These "comparisons with self" serve only motivational purposes. It may be encouraging to a pupil and his family to know he is "working up to capacity" or "improving," but such marks give them no information, except inferentially, about his achievement.

Grouping schemes which narrow the ability ranges of class sections complicate making comparisons. If each section is used as the basis of comparison in marking, the better pupils in lower sections get higher marks for inferior work than do some pupils in the higher sections for higher quality work. This results in difficulties when two such pupils are neighbors, when pupils are ranked in class, and when decisions are to be made on the basis of marks. On the other hand, if all sections are marked on the same standard, high marks are practically guaranteed for all pupils in some sections and precluded for all pupils in other sections.

There is no simple solution to this dilemma. The reason why grouping creates this problem is that the curriculum reference of marks is obscured. It is a basic principle that, in addition to specifying bases of comparison, one must also indicate for what kind of work a mark is given. In some school systems, anything from remedial long division to a first-year algebra course is, for example, designated as "Eighth Grade Mathematics."

The source of this difficulty with curriculum reference is a failure to recognize that grade organization is purely an administrative and social device with practically no significance for curriculum, at least at the secondary-school level. This is recognized in some of the elective areas, such as foreign languages. French I is French I whether taken by an eighth-grader or a senior.

The same should be true in all curriculum fields. This permits a descriptive marking system which would also serve motivational purposes. Irrespective of a student's ability or school grade, a comparative mark within the particular level would be "fair" to him, if he were properly placed.

In the absence of any such sweeping curriculum reorganization, schools which group by ability must use a dual marking system or use clear group designations, both in reports and in records. The multiplicity of group designations makes for confusion and overlapping, but the dual system necessitates common examinations for groups pursuing different courses of study. In the long run, the radical proposal may be simpler than any attempt to rationalize the current practice.

Whether marks are in the form of letters, numbers, or geometric figures is of little consequence so long as their meaning is understood. But some confusion might be cleared away in formulating a policy which indicates the purposes of marks, the attributes being marked, the sources of evidence used, the bases of comparisons, and curricular reference of the marks. At least there might be less of a mess in marking. •

Trends Point to Realistic Partnership

The Folklore of Local Control

Thomas D. Bailey

In NEA Journal

LOCAL control of schools as we know it today has certain important values we must not lose in American education. It allows maximum flexibility to meet local educational needs and desires that differ from those in other communities. Because it involves direct investment of money and effort, it also stimulates community interest in the schools and a desire to make effective use of school facilities. Local control exercised through nonpaid or low-paid school boards is less expensive and more efficient over-all than highly centralized control would be.

But what is local control today? There are those who think that local control involves the absolute right of local persons to make decisions without reference to higher authority. Such thinking accepts folklore as fact. Local control of this type is nonexistent today.

Folklore is appealing. Customs, beliefs, and tales traditionally preserved among people become a part of the common culture. Folklore has a charm of childhood fantasy about it; its convictions linger despite common sense and scientific reasoning. The conviction that absolute local control of education is still essential or even possible falls in this category.

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The concept of local control in education is a time-honored one. Actually, however, state and federal influences on education began early in our nation's history, two good examples being the Northwest Ordinance of 1787 and the Supreme Court decision in the Dartmouth College case in 1819. For the past several decades, local school boards have looked to state governments for financial support. Furthermore, such control of education as local boards exercise is within a framework of state and federal laws, regulations, and directives.

There is other evidence contradicting the folklore of local control. The school curriculum is influenced by the National Defense Education Act with its emphasis on science, mathematics, languages, and guidance. Federal vocational-education programs for many years have generally been influenced by laws and administrative directives. Even subsidies by private agencies, such as Ford Foundation subsidies for educational television, have to a degree "controlled" local districts accepting them.

Accreditation standards by regional agencies control to a considerable degree the practices in local school systems. For years, college entrance requirements have determined to an extent what is taught in secondary schools. State athletic activities associations often rigidly control local schools with respect to certain athletic activities. The fact that such controls are not official does not make them less real. They do limit or remove from the local community the power to make *absolute* decisions.

On examining the evidence, it appears obvious that local control in education as our forefathers knew it has become obsolete in certain respects.

It is interesting to note that even citizens most in favor of traditional local controls seldom resist decisions made by a central authority if they agree with those decisions. To my knowledge, few citizens have raised objections to the state requirements for a minimum school term of at least 180 days, minimum qualifications for teaching, mandated financial accounting for the handling of public funds, or for prescribed procedures in appointing teachers.

Even though absolute local control is a thing of the past, people in communities today can exercise effective control over the decisions of state and federal agencies and even those of private organizations. Today, more than ever before, modern communications media, well-organized citizen groups, and increased leisure time make it possible for citizens to participate in local, state, and national meetings and to assist in formulating policies that deal with education.

Groups of citizens at the local level can wield much influence through legislators and administrators, both in state government and in federal legislation relating to education. This extension of the influence on education by the citizens in each community is the new and modern approach to local control. Financial assistance from state or federal agencies may even be refused if the terms are contrary to the desires of local school officials.

TRENDS IDENTIFIED

What trends, then, can be identified as we move into the "searching sixties?"

The mobility of our population has increased. In one year—1958-59—one million children moved from one geographic area of our country to another. One million moved from one state to another and two million from one county to another. With this increased mobility, education is a matter of national concern.

Agreed that education *is* a national concern, we must also agree that there are extreme variations among the various states in the ability to finance good education. The statistics supporting this statement are impressive. And there are other facts compounding the problem facing our nation today.

The demands caused by national defense and international rivalry are now accentuating the obsolescence of old patterns and practices in education. Under today's conditions, can this nation afford to allow any geographical area to continue to take a pauper's oath as the excuse for providing only mediocrity in education? Should there be any geographical area in America where it is an educational liability to be born and thereby be sentenced to poor or mediocre educational opportunity? Can this nation afford to allow large segments of its potential citizens to grow up within a society that is indifferent to the values of excellent education and the very survival of America?

It seems to me that the trends point to a realistic cooperative partnership of local, state, and federal governments in making possible quality education for all who can profit from such opportunities. This effort must of necessity provide for some desirable controls by all three divisions of government in the form of fiscal accounting and reporting.

Of course, the initiative of local citizens to improve education at the grass-roots level must not be thwarted by any effort to provide financial assistance to local schools from state and federal sources.

I think of myself as being in the middle of the road where education is concerned. I have heard it said that the state and federal government should take over the responsibilities of operating public education to assure quality education for all. I do not agree. Nor do I agree with those at the other extreme who declare that localized foolishness would be preferable to centralized wisdom. What must be recognized and dealt with is that the concept of local control believed by segments of our senior citizens is folklore and has been outmoded for some years. •

Youngster Control

- When a child begins to get the upper hand, it's time for a parent to lower his.—From *BEA Newsletter*.

- When Johnny started school, nobody was happier than his parents. In his short life he had left the house a shambles and his parents nervous wrecks. Later the teacher called Johnny's mother. "Young Johnny," she said, "is more than I can handle. I'm forced to ask your help." "Listen," the mother replied, "all those years I had him alone—did I ask you for help?"—From *Florida School Bulletin*.

What Is the Real Capacity of a Student?

The Myth of Underachievement

ROBERT J. DULLES

In The Journal of Educational Sociology

PROBABLY next in popularity to the great American myth that almost anyone can achieve is the myth that almost anyone can underachieve. This belief has been particularly popular in American educational circles. In the race with Russia to who-knows-where, such belief has taken on considerably more importance. We all believe that how we conceive of the student and the consequent quality and direction of his education must have some influence (albeit vague) on the final course of human existence.

The concept of underachievement is simple. It says that students who do not perform in the classroom as well as expected are "underachievers." In short, they could do better but don't or won't. Thus a problem is born. A few teachers fight it; some researchers explore it; many parents fear it. Underachieving students are alternately warned, tested, punished, encouraged, counseled, and tutored. Still the problem persists. We would like to suggest here that a slight reformulation of the basic issue of achievement might be more effective in meeting educational goals.

Let us ask ourselves a question: Is the "real" capacity of a student what someone else judges it to be or is it the actual level of peformance and achievement? Everyone "achieves" (i.e. approximates goal behavior) to some extent, but by absolute standards some accomplish more than others. There are reasons for this. Genetics is one important factor; social experience is another. And although it may be impossible at present to disentangle all the contributing elements, in theory a student's behavior is explainable and modifiable in terms of some observable conditions or events. Otherwise we would not try—purposefully—to educate. It is fairly clear then that, given all the biological and social factors, every organism achieves what it can.

Logic seems to urge us to direct our attention toward our measures of prediction rather than toward the underachievement. Many facts of classroom behavior are not easily accounted for, but needing some explanation, the course of least re-

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sistance is often an egocentric operationalism.

By defining lack of learning as underachievement, for example, the student rather than the person making the prediction is often assumed to be responsible for what discrepancy occurs between performance and prediction. Accordingly, the student is criticized or praised. Sometimes the criticism or praise is indirect or only by implication, but the direction of the judgment is usually clear. Miriam Goldberg refers to the "able youngster who dissipates his abilities, allows them to atrophy, or does not bring them to fruition and social service . . ." William Deagan has called underachievement a "major educational disease." A report by Stanley Russell has used the term "academically resistant" for underachievers, and H. G. Gough has cited underachievement as being similar to delinquency.

Simply changing the terminology from "underachieving" to "over-predicted" would perhaps eliminate some of the value connotations related to the student. Lessening this judgmental aspect of the school situation would seem to be a highly desirable step. It might be that, in this formative process of education, we are unknowingly "building into" the student (by unjustified personal judgments) the hostility which so strangely exhibits itself in ethnocentrism, isolationism, and war. At minimum, reducing judgment would be a helpful prerequisite to therapeutic and counseling programs. •

Motivation and Achievement

• A neighbor asked little Johnny how he liked going to school. "I didn't like the idea too well at first," he replied, "but I've asked my Dad so many questions he can't answer that I decided I better go after all."—From *Christian Science Monitor.*

• A fourth-grade teacher asked her class to write two pages on "What I Like about My Parents." One girl's theme said: "I like my mother because she lets me help her work in the kitchen even if I don't want to."—From *Mississippi Educational Advance.*

• Willy was sobbing bitterly. Between sobs he told the teacher, "I don't like school, and I have to stay here until I am 16." "Don't let that worry you," consoled the teacher. "I have to stay here until I am 65."—From *Texas Outlook.*

• The best excuse for ignorance is that instant knowledge has not been perfected yet.—Douglas Meador in *Matador Tribune,* Texas.

Progress in Mathematics

G. BALEY PRICE

In The Revolution in School Mathematics

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THE changes now taking place in mathematics are so extensive, so far-reaching in their implications, and so profound that they can be described only as a revolution.

There are several causes. The tremendous advances made by mathematical research is one cause. Mathematics was not completed by Newton. Theorems, like airplanes, become obsolete as new and better ones are discovered.

The 20th century has been the golden age of mathematics, since more mathematics, and more profound mathematics, has been created in this period than during all the rest of history. This century has seen the introduction and development of pure-mathematics subjects such as abstract algebra, topology, measure theory, general theories of integration, and functional analysis, including the theory of Hilbert space.

There has been rapid development in other mathematical fields which are closely related to important present-day applications. Probability and statistics are studied not only for their own sake, but also because of their extensive and important applications in the physical and engineering sciences, in the biological sciences, and in the social sciences. Without entering into detail, it can be truthfully said that changes made in mathematics by modern research are equally as profound as changes in chemistry, physics, and biology.

Another cause of the revolution in mathematics is the automation revolution. The automation revolution consists of the introduction of machines that control machines, and the consequences of the use of such machines. We have examples all around us. Long distance telephone dialing is one impressive example but it passes unappreciated because it is so commonplace. The complicated computers and control mechanisms directing missiles into orbit are more spectacular examples. Another example of the automation revolution is provided by the computing machines that are programed to control machine tools for cutting three-dimensional shapes from wood or metal.

The automation revolution has influenced the revolution in mathematics in two ways. It has made possible the construction and operation of machines of enormous size and complexity; and it has thereby created the necessity for the design and development of such machines.

A third cause of the revolution in mathematics is linked to the automation revolution. Automation not only created the necessity for solving complicated design and development problems, but it has contributed an important tool for their resolution. This tool, the automatic digital computing machine, is so important that I list it as the third cause of the revolution in mathematics.

Introduction of the large-scale, high-speed, automatic digital computing machines has made it possible for mathematical theory to be teamed with the computing machine to produce answers that are required by physicists, engineers, and others.

One example will illustrate the change in our ability to compute. A century ago an Englishman named William Shanks computed pi to 707 decimal places. Working with pencil and paper, he devoted 20 years to the task. In 1949, however, the computing machine known as the ENIAC computed pi to more than 2000 decimal places in 70 hours.

The importance arises not from the fact that certain calculations can now be carried out more quickly, but rather from the fact that computations which were formerly impossible can now be made quickly and efficiently. Consider the launching of a missile. The computing machine remains on the ground while radar supplies information to it about the flight of the missile. The computing machine makes the necessary calculations and, through a radar connection, sets the controls in the missile. The flight can be influenced only while the engine is in operation, a period usually not more than two or three minutes. No group of human computers could possibly receive the data, make the necessary calculations, and transmit the results back to the missile in so few seconds. The electronic digital computer handles the problem with ease.

EFFECT OF THE REVOLUTION

What meaning does this revolution hold and what effect will it have on mathematics taught in our schools? The revolution now in progress requires that new mathematics be taught in our schools, that the teaching emphasis be shifted on many subjects now being taught, and that we increase production of mathematicians and mathematics teachers.

A brief description should serve to illustrate the changes in the nation's need for mathematics and changes in the nature of mathematics taught in our schools.

In 1850 few people were engaged in research. The general public needed to know how to keep simple accounts and how to solve simple problems in measurement. The four basic arithmetic operations were adequate for bookkeeping, determining the number of acres in a field, or the number of cords of wood in a stack. The school's arithmetic courses covered these topics.

New needs had arisen shortly after the turn of the century. Here is one example, which resulted from two advances in dairy technology. The first advance was the invention and widespread use of the cream separator, a machine which separates milk into cream and skim milk; a second advance was development of a simple test for determining the percentage of butterfat in a sample of milk or cream.

Given the cream separator and the butterfat test, a common problem for the dairyman is illustrated by the following: How many pounds of milk, testing 5 percent butterfat, and how many pounds of cream, testing 30 percent, must be mixed to give 100 pounds of coffee cream, which tests 20 percent butterfat?

Solution of this problem has led to solution of two linear equations in two unknowns. For many years high-school algebra has included treatment of the solution of systems of this type.

As technology advanced, problems in linear programing involving many unknowns became of great practical importance to business, industry, and government. The problems in linear programing involve considerations not heretofore taught in high-school mathematics courses. These courses have treated linear equations but not linear inequalities. A study of inequalities of all kinds is one of the new topics included in the new mathematics programs for high schools.

DIFFERENT EMPHASIS

In emphasizing the importance of new developments, it is not desired nor intended to imply that recent developments are the only important parts of mathematics. Many old subjects are still highly important and we must continue to teach them. Frequently, however, the emphasis must be placed on a different aspect of the subject. The teaching of trigonometry and logarithms provides two examples.

Trigonometry became a part of the college curriculum about 300 years ago when the American colonies were located on the Atlantic seaboard. Most college graduates became sea captains, surveyors, or ministers. Trigonometry was the all-important applied mathematics. The solution of triangles, needed in navigation, in laying out farms and cities, in astronomy, and in calculating the date of Easter was its important aspect.

Today, radio and radar have made navigation easy; the new country has been staked out; and our observatories compute the date of Easter. The properties of trigonometric functions have replaced the solution of triangles, as the important application of trigonometry. Today schools should emphasize analytic trigonometry.

Logarithms were introduced about 300 years ago, and they have been taught widely as a tool for calculation. Today, small calculations are performed on desk calculators and large calculations are performed on electronic digital computers. Shall we stop teaching logarithms? No. But the emphasis should be shifted from logarithms as a tool for calculation to a study of the properties of the logarithm function.

An unprecedented demand for mathematicians and mathematics teachers is one result of the revolution in mathematics. It is impossible to foresee a time when there will be an adequate supply.

The Rockefeller Report on Education, entitled *The Pursuit of Excellence*, which contains an account of the automation revolution, the accompanying long-term increase in demand for highly educated personnel, and the crisis that confronts the nation, stresses the crisis in science and education.

The implications of this crisis for our schools are clear. We must put forth whatever effort may be required to insure that the education provided by our schools—and in particular, the mathematics education provided by our schools—is adequate for the needs of our times.

What are some of the components of the mathematics education that is adequate for our times? The first component consists of mathematics courses with the proper mathematical content. Many of the topics in such courses are old mathematics, but presented in such a way that the students gain greatly increased understanding and insight into the subject. Many of the topics will be new in the high-school curriculum, such as vectors, probability and statistics, and the theory of matrices.

The second component consists of well-qualified teachers. A teacher must know a great deal of mathematics to be a satisfactory teacher of school mathematics. Superintendents should now realize that the day has passed when any teacher who happens to have an otherwise free period can be assigned to teach mathematics.

And the third component consists of counselors who will make certain that those students who have mathematical interests and abilities take at least four years of good mathematics in high school, and that all of those who have the ability to do college work take at least three years of high-school mathematics. A student who does not take at least three years of high-school mathematics is so handicapped that many fields of study are permanently closed to him when he reaches college. The best courses and the finest teachers are to no avail if students do not take the courses. •

A Bold Experiment

Elementary-School Science: 1871

SIDNEY ROSEN

In The Elementary School Journal

WE are witnessing stirrings of a revolt in elementary-school science. It is the first major departure from standard curriculums since the reaction against nature study in the twenties.

Critics are protesting that revisions of the elementary-school science curiculum made after the twenties have failed to give children an understanding of fundamental scientific concepts. Children do not learn how scientists arrive at, and use, basic concepts to explain natural phenomena, the critics say; and they assert that with proper guidance most children can reach far higher levels of sophistication than are now being reached in most elementary-school classrooms.

Ninety years ago, in 1871, an experiment based on similar thinking was begun in the elementary schools of Cleveland, Ohio. An 1873 report of this experiment stated: "The elements of physics are now being taught in the lower grades of the schools of the city. It is a philosophical step in the right direction."

The central agent in this experiment was Conrad L. Hotze, physics instructor in Cleveland's Central High School. Hotze wrote a textbook especially designed for the elementary-school course: *First Lessons in Physics,* published in 1871.

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The book contained 39 lessons, one for each week of the school year. Each lesson included one or more simple experiments. The entire category of physical phenomenons was covered, from principles of gravitation, through concepts of molecular action, to the electric telegraph. The content of the two-year course (usually taught in grades six to eight) would probably seem formidable and haphazardly organized to elementary-school teachers today.

The experiment in Cleveland had interesting ramifications. Hotze was given time off (without extra pay), to act as what we would call a consultant in elementary-school science. He instructed elementary-school teachers in physics. For two years he met with all of Cleveland's sixth- and seventh-grade teachers twice a week, instructing in the principles of physics, methods of teaching physics, and in the techniques of performing simple experiments.

Hotze was proud of his program. In an 1873 report he disclosed that 4,117 pupils had been exposed to the new physics course. Some seventh-graders passed high-school examinations in physics. Hotze boasted that one class had performed well on a set of examination papers that the physicist, John Tyndall, had prepared for his secondary-school science classes in London. As further supporting evidence, Hotze reported that teachers were being inconvenienced by questions pupils put to them, and librarians reported an increase in the circulation of popularized science books among the pupils.

At an 1873 meeting of Ohio and Michigan teachers' associations, Hotze said that the greatest deterrent to good elementary-school science teaching was the fear that the teachers had of science—primarily the fear that the pupils would discover that teachers were capable of making errors. Thus, the teachers sought safety by teaching science as a package of isolated facts.

REACTION

There was some public reaction to the experiment. Enthusiasm was reported on the part of local manufacturers, who may have foreseen the early sowing of a crop of engineers for the country's growing technology.

Among the voices raised against the new physics course, some critics, including school-board members, felt that the course was putting a strain on the abilities of young children.

The Cleveland superintendent of schools replied to the criticism: "What is attempted in physics? Nothing more than to excite attention to the common phenomena which present themselves to the observations of boys and girls at every turn, to explain some of the simplest laws which manifest themselves in the forces of Nature. To study mechanics, hydrostatics, pneumatics, optics, etc. in the grammar schools, two years before the high school, would seem to be extreme nonsense; and so it would be, if we meant thereby all that is included in these terms."

The superintendent argued that this type of course was especially fortunate for those who would never reach high school. At the time, six out of every seven pupils entering the fifth grade did not go into high school. These pupils were typically denied the opportunity to learn any physical science.

Something should be said about the atmosphere in which the experiment was being conducted and into which the superintendent was addressing his remarks.

During the 1870's many European theories were being tested in American classrooms. In the lower grades the predominant method for teaching science—when it was taught at all—was the object lesson, an imported form of Pestalozzian methodology. The teaching of an object lesson could be impressive, in the hands of a skilled instructor, and the approach became a fad.

Hotze, however, believed in teaching science by the inductive method. That is, an experiment was first performed; and from the data, or results, the pupils were to be led to the statement of a law of nature.

In 1871, the industrial revolution was in full swing in the United States. Educators here were being inspired by Herbert Spencer's utilitarian philosophy. Science and only science was the salvation of civilized man, Spencer was insisting.

The Cleveland experiment in elementary-school science was a bold attempt to put Spencerian scientism on a practical footing in American public schools. The experiment lasted about nine years. After 1880, there is no further mention of physics in the grammar-school course of study. Grammar-school science became physiology and hygiene. The change was undoubtedly a sign of the increasing influence of the Woman's Christian Temperance Union.

What happened to the experiment? The official reports give no explanation. Did the school board feel that it was a waste of time to teach physics to elementary-school teachers, especially when the pupils who reached high school would take physics anyway? Was there strong pressure by those who held that the teaching of science in the elementary school was a time-wasting fad? Did Hotze resign and so remove the breath of life from the program? We do not know. This experiment, which was actually part of a state-wide attempt to introduce elementary-school physics into Ohio schools 90 years ago, has not been fully documented historically.

What happened in the sixth and seventh grades in Cleveland in 1871 is not much different from what is happening in elementary-school science today. The Cleveland experiment was an educational undertaking far ahead of its time. Perhaps this is the reason why its worth was not recognized.

Science is indisputably a major influence in our culture; without an understanding of scientific concepts and principles, our children are only partly educated. Political decisions about policies involving scientific activity are increasing daily. Yet, we are still reluctant to admit that too many of our children reach intellectual maturity with a warped image of science.

Was the major weakness of the Cleveland experiment Hotze's inability to prepare the grammar-school teachers for the teaching of physics? Would it have been successful if Hotze, perhaps aided by high-school physics teachers, taught the physics course as visiting specialists? How much science should an elementary-school teacher know?

We face these and other related questions today just as Hotze faced them 90 years ago. These questions will have to be answered before the teaching of elementary-school science can be strengthened. •

An Unresolved Problem

The Laboratory School

JOHN F. OHLES

In

The Journal of Teacher Education

OUR teacher-education programs are suffering from problems connected with that complex variously called the practice, demonstration, laboratory, or campus school. It should be recognized that "something" must be done to or with the laboratory school (as "something" has continually been attempted since it was introduced in this country 120 years ago).

As authorities have expressed it, the laboratory school's basic difficulty is its lack of direction.

It is probably in this failure to select appropriate, limited, reasonable, and achievable goals, that the problems of the laboratory schools have hatched.

To point out the dilemma, one might list typical "critical" problems: expanding demands, rising costs, increasing pressures on personnel, integration of professional laboratory experiences with the total college program, and recruitment of competent, qualified personnel.

The laboratory school concept has developed from a "practice" school, to a "model" school, to a "training" school, to a "demonstration" school, to an "experimental" school, to a "campus" school, each with its own goals and functions. Lacking a great amount of objectivity in assigning duties, it is inevitable that laboratory-school teachers should be generally trying to perform more functions than they can perform at high quality.

Although the financial issue should not take precedence over the question of educational services to future teachers, the typically small laboratory school is as inefficient as the small public school. When financing hampers teaching, restricts supplementary services, and denies enrichment experiences, the educational value to the emerging teacher is severely crippled. This is the result of budgetary struggles for some laboratory schools.

Expanding demands on the laboratory school create increased pressures on the staff. The laboratory-school teacher must supervise student teachers; prepare, conduct,

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and evaluate demonstration lessons; engage in experimentation; meet with parents, with visiting teachers, and with college instructors—in addition to teaching pupils.

As a college-faculty member, the supervisor serves on committees, engages in professional activities, and participates in community activities. College faculty members are also expected to pursue the highest academic degrees and write for publication.

At least one authority sees four problem areas concerned with integrating the campus school and the college. They are: teaching load and lack of time; failure on both sides to see the roles of the other; status problems; and lack of contact between staffs.

Failures in mutual understanding may be primarily rooted in the inability to define the role of the laboratory school. As long as it represents one set number of functions to college instructors and a different function (teaching children) to supervising teachers, misunderstandings are likely to arise.

Although the literature tends to ignore the status problem, campus-school teachers affirm that it exists. The idea survives that the progression from teaching in the kindergarten through instruction in the graduate school is somehow akin to the messenger boy becoming chairman of the board. It is also true that some campus-school teachers are reluctant to accept faculty responsibilities and opportunities for advanced study and to participate in professional activities.

The growing difficulty in recruiting competent, qualified personnel is exerting a negative influence on laboratory schools. The increased duties make it more difficult to interest experienced teachers in positions. An ever-increasing number of responsible, well-paid, public-school positions attract the competent and ambitious teacher. Furthermore, the likelihood of advancing from the laboratory school to college teaching in the education department is reduced as recruiting becomes more difficult. To the degree that college salaries lag behind public-school salaries, the ability to recruit superior personnel also suffers.

Recruitment problems bear directly on matters of the laboratory school's effectiveness and the relationships with the college faculty. If the quality of the staff is lowered, the quality of service is reduced and supervising teachers find difficulty gaining acceptance by their colleagues.

TO INCREASE EFFECTIVENESS

There are a number of suggestions for increasing the effectiveness of professional laboratory experiences. The comments here will be limited to two possibilities: a strict delineation of laboratory-school functions and a substitution of cooperative programs with local public schools for campus schools.

To recruit the kind of teachers needed, the notion that supervising teachers should hold college rank and assume the corresponding duties could be abandoned. Instead, a title (if absolutely necessary) of teacher-consultant or lecturer-designate could be substituted. Divorced from faculty status and freed from a rank-degree base, salaries may be adjusted to ensure a supply of able teachers. This implies that the school become a tool of the college rather than an equal partner in teacher preparation.

Perhaps those colleges which do not have a campus school but work instead with local public schools have an answer. This is not necessarily a repugnant situation for a public school. One incentive for the schools is use of the program for recruiting new teachers.

To establish appropriate coordinating machinery between colleges and local public schools, state-wide systems of control, finance, and administration may be needed. In this situation, supervising teachers might be hired jointly by the local school and the college, with a financial formula in which the teacher receives a regular full salary from the public schools and a standard amount from the college. Division of authority and responsibility should be clearly established. Appropriate state subsidies should cover incidental added expense to the school system.

In both possibilities (as in any laboratory situation) educational television should be used for demonstrating and observing, thereby reducing aspects irritating and distracting to the laboratory classroom. Taped telecasts enable a laboratory teacher to explain and comment on his demonstration lessons before a college class. Conflicts in schedules could as easily be resolved.

The major immediate need of the suffering laboratory school is for some bold souls to face the challenge and initiate a number of experimental substitute programs to perform the functions and surmount some of its limitations. We cannot limp along, oblivious to growing difficulties in this sensitive aspect of teacher preparation. The question is not whether major treatment is needed, but who is to be the doctor and which cure should be applied. •

Non-unabridged Definitions

Teenagers: People who are almost adults but who insist on proving it in such childish ways.—From *Changing Times*.

Broadminded: When both sides of an argument make you laugh.—From *The Physical Educator*.

Student marriages: Proof that a little yearning is a dangerous thing.—*Ivern Boyett*.

Patience: A quality most needed when it is exhausted.

The Problem-Solving Approach

DAVID E. NEWTON

In School Science and Mathematics

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No academic course in the junior-high school or the high school is better suited to the problem-solving technique of teaching than is science. Yet, one of the criticisms most frequently heard about science teaching is that problem-solving is not a vital part of the science program. Critics claim that the usual science class takes the form of a read-question-answer session. Students are given the answer by the textbook or by the teacher and are asked to memorize and recall this answer. Opportunities for students to discover answers on their own, we are told, are very limited.

The question which should concern all science teachers is, "How valid are these criticisms? To what extent *is* problem solving a real part of our program?"

The answers to these and similar questions are, unfortunately, difficult to discover. Theoretically, it would be desirable to go into science classrooms all over the United States and find out just what and how science teachers are teaching. The complete impracticality of this method dictates that some other means must be used to determine the validity of the criticisms.

One possible practical solution to this problem is to conduct a survey of teacher-made tests. This approach is predicated on the theory that, basically, the tests which a teacher gives reflect the general educational philosophy of the teacher. One would expect that the teacher who uses problem-solving in his classroom lessons would also use problem-solving in his tests. It would be somewhat inconsistent to expect a teacher to inculcate the problem-solving approach in the classroom, to give students actual problems to solve, to encourage analytical thinking during daily lesson plans—and then to administer a straight fact test at the end of a unit. Thus, this writer based a research work on the hypothesis that an evaluation of the character of science tests will give a reasonably accurate estimate of the nature of the science teaching which is now taking place.

A survey was conducted in December 1960. Letters were sent to 66 public-school systems in 50 states requesting the following materials: one copy of a junior-high general-science teacher's best test; one copy of the same teacher's most recent test; and one copy of the teacher's typical test. In all, 1906 separate questions were read, evaluated, and tabulated.

The questions were categorized as "factual" or "reasoning" according to the following scheme:

Factual: those questions requiring an answer which is a statement of a principle or the statement of some factual information. Answers to these questions would have been memorized from some previous classroom or textbook experience and then repeated by the student on the test.

Reasoning: those questions which require an answer arising from the application of some principle or from a process of reasoning. These are questions which, presumably, are completely new to the student. They would require enough original thinking on the part of the student to permit him to "figure out" the answer.

To provide a basis for comparison, a group of 10 textbook publisher's tests were surveyed in the same fashion as were the teacher-made tests.

The conclusions were strikingly evident. Both teacher-made tests and published tests rely very heavily on straight factual, memorization-type questions. Less than one-fifth of the questions reviewed could conceivably be classed as "thought" questions. If the initial hypothesis is accepted—if one believes that a test reflects a teaching philosophy—then it becames quite obvious that problem solving is more myth than fashion in current junior-high teaching.

It should be pointed out that some of the respondents were aware of this "deficiency" in the products. Their justifications for so few "essay" or "reasoning" questions were that they lacked time to correct such tests. This is a legitimate complaint. However, it might be more constructive for teachers to complain about lack of time for *preparing* such tests, for it became obvious during the study that thought questions need not be long essay questions. Short-answer questions can be prepared which require reasoning in their answers. Such questions are not readily available and do require time for composition.

Further progress in the use of problem solving in science education might take the direction of providing more objective tests requiring reasoning and critical thinking. When these tests are available, the goal of a problem-solving course in science can become more nearly a reality. •

SOME of our modern children are so precocious, the birds and the bees should study them.—Chester L. Marks in *Wall Street Journal.*

He Accepted the Challenge of His Time

The Case of Harold Rugg

FRANKLIN PARKER

In The Midwest Quarterly

IN 1940, with a large part of the world a battlefield, although America was not yet involved in the actual fighting, conservatives in America, afraid to face basic issues, found it convenient to attack "subversive" school books. The primary target was a mild-mannered, 54-year-old professor of education at Columbia University's Teachers College. His name was Harold Ordway Rugg.

Communities were warned to remove Rugg's books from local schools. The reason: Rugg's books dealt with controversial topics. They caused doubt about America's greatness. They struck a blow at private enterprise.

Eight years before, in 1932, George S. Counts had asked in a pamphlet, *Dare the School Build a New Social Order?* His answer was a resounding "No," buttressed by studies showing marked conservatism among educators and little understanding of social issues among school children.

While George S. Counts lamented education's subservience to political and economic forces, Harold Rugg pursued a theme of using education to improve political and social influences. Rugg believed that the school should be a practicing democracy. To further this end, he wrote elementary-school and secondary-school textbooks, books for the preparation of teachers, yearbooks for educational associations, books for adult learning, and books for the general reader.

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His writings had two innovations: First, they cut across history, civics, government, economics, geography, and other subjects dealing with man and society. Rugg pioneered in teaching the social studies. Second, they discussed controversial issues, showing the good and the bad, the strength and the weaknesses of a changing America. Rugg pioneered in urging the discussion of controversial issues.

What led Rugg on this path? He was born in Fitchburg, Massachusetts, a conservative mill town, on January 17, 1886. Rugg knew nothing of the books describing industrial growth and immigrant labor that were being written at the turn of the century. His schools did not teach these things. At sixteen he worked in a cotton mill with new immigrants, but he knew little of the laboring man's problems.

Four years at Dartmouth gave Rugg a smattering of academic thinking but no sure sense of personal values. He turned from one political-economic faith to another.

Following five years of work as a railroad surveyor, Rugg turned to engineering education. At the University of Illinois he taught engineering and took graduate work in education, psychology, and sociology, earning a Ph.D. degree in 1915. For the next three years he worked in educational measurements with Charles H. Judd at the University of Chicago.

Educational surveys, statistical analysis, child accounting, and tests and measurements were popular. Rugg was still working in measurement and error reduction but now in human rather than physical terms.

When the nation tooled for war in 1917, Rugg joined Edward L. Thorndike and others in the Army's Committee on Classification of Personnel. After the war he became school psychologist at the Lincoln School and professor of education at Columbia University's Teachers College. Through the influence of experimental Lincoln School and the stimulation of Teachers College, Rugg the curriculum-maker emerged.

Freedom, imagination, and willingness to experiment pervaded the Lincoln School. Rugg measured and charted the abilities of every child in the school. From this child-centered approach (a phrase he coined), Rugg turned toward a society-centered outlook.

Rugg wanted to combine with a new emphasis the subjects of history, geography, and civics materials. He explained his plans to administrators of the Lincoln School. He said, "I want to cut across subject boundaries. I want to honestly present to young people the problems of modern life."

Setting to work, Rugg rediscovered a body of literature which was to form the matrix of his new approach. He steeped himself in the writings of critical interpreters of the industrial age. He dug into the works of the new historians, the new economists, the new political scientists, and the new social and literary critics.

He was made uneasy by what he read. The surge of new ideas unfolded for him a mosaic of increasing industrialization around the world, people herding together in cities, the disappearance of handicrafts, the terrifying search for food, the seizure of large territories, and the subjugation of backward people.

Rugg persuaded a few teachers to combine history and geography from the point of view of contemporary problems. Science was keyed in; the arts were introduced. Rugg's small group of teachers pulled and hauled each other through a year of trial and error.

Rugg assembled new materials. In a new historical setting, he presented contemporary problems of immigration and population, industry and business, local and national government. He found school people receptive to the materials and, despite many difficulties, the preparing and publishing work was carried out and expanded. By 1926 the new social-studies materials were being used experimentally in 375 school systems of 38 states. Rugg had acquired a large following, and commercial publication became necessary. Ginn and Company published a six-volume series complete with workbooks and study guides (1927-1932). Later, eight more volumes were published, the 14 volumes covering a range from grades three to nine.

In 1929, economic depression gripped America and the world. With Franklin D. Roosevelt's New Deal, the social engineers, the technocracy advocates, and the academic brain-trusters came to the front. Rugg, as one of these, sought a creative design for social rehabilitation. He plunged into adult education.

Meanwhile, Rugg had written two study guides for adult groups and had expanded these into his controversial book, *The Great Technology* (1933).

The Great Technology contained Rugg's master plan for social reconstruction. From his studies of the American scene, Rugg saw evidence of a great emerging culture. The raw material for this great leap forward already existed in vast data accumulated by advanced thinkers of every discipline. This storehouse of ideas needed creative synthesis into a new curriculum design. The core of such a synthesis was suggested in Rugg's own social-science textbooks.

Rugg went beyond a child-centered and a society-centered school. He envisioned nothing less than a school-centered community where school and society continually improved each other. He envisioned an America in which all institutions consciously contributed to the cultural and creative growth of each citizen. The theme of *The Great Technology* was a bold redesign of curriculum, school, and society by creative artist-teachers.

THE ATTACK BEGINS

Then Rugg came under attack. The attack focused on Rugg, more so than on Dewey or Kilpatrick or Counts. Rugg had written the books so that men might understand. But men banned the books.

The attack grew from a charge of "subversive," hurled by an official of a large corporation in 1927, and a published charge of being sympathetic to communism, made by Elizabeth Dilling, a concert harpist and housewife who visited Russia and wrote *The Red Network* in 1934, to a determined, vigorous effort to oust Rugg's books from schools in 1940.

In March, April, and May of 1940, *Liberty* magazine published three articles written by George E. Sokolsky, publicist for the National Association of Manufacturers. In the attack, Sokolsky charged that the school children were being exposed to a secret poison gas known as "social studies" and that Rugg was the chief culprit. Other articles of like nature appeared in *The American Legion* magazine and in the *Nation's Business.*

The attack grew in ferocity. School officials in suburban towns became frightened. Rugg's books were banned in communities in New Jersey, New York, California, Ohio (the books were burned in Bradner, Ohio), and Pennsylvania.

Rugg faced his accusers in open forum. Everywhere he asked, "Have you read the books in question?" Invariably, the answer was, "I haven't read the books but I have heard that they are bad."

Rugg publicly pressed unfair attackers to explain their objections. Sometimes it was expressed as disagreement over the philosophy of the Progressive Education Association, sometimes as a concern over "Godlessness" in the schools. Rugg pointed out that during normal times educators had never been able to arouse public interest in school problems. The real cause of tension, he said, lay in the fear of fascism and communism abroad and at home. National hysteria, he said, had resulted from the fall of France, British evacuation of Dunkirk, and reports of foreign agents in the United States. Under this smokescreen of fear, Rugg charged, special interest groups were smearing liberal thought.

The analysis was right. The attack on Pearl Harbor resolved the indecision; America mobilized for war and Rugg was forgotten.

The American mood shifted to post-war problems and cold war concerns. Unable to regain its original momentum, the Progressive Education Association and its allied publications declined. The Essentialist movement and the Basic Education advocates gained strength. The pendulum-swing toward a traditional point of view was in part America's answer to the issues Rugg had raised in his life's work. The way to preserve democracy, Rugg had said, was by education and discussion. What kind of education? What sort of discussion? On these things Americans could not agree.

"My thesis," Rugg wrote, "is that all of American life must be brought into the school, the magnificient achievements as well as the deficiencies." On this thesis, too, Americans disagreed.

Harold Rugg died in his home in Woodstock, New York, on May 17, 1960 at the age of 74. His contributions included these things: To a chauvinistic civics, he gave social depth and international awareness. To the new social studies, he gave a rich body of textbook material. To make teaching an adventure, he urged a creative approach. To make learning honest discovery, he asked youth to seek truth. In setting forth an example for others, it can be said that he accepted the challenge of his time. ●

Is the New Emphasis Sound?

Some Questions on Teaching Foreign Languages

DENZIL E. WIDEL

In Journal of Secondary Education

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FROM kindergarten to college, there is a new emphasis on the teaching of foreign language. It appears the United States means to have the younger generation become a generation of linguists, or at least be a generation that can order dinner from a menu in a language other than English. Large amounts of time, money, equipment, and facilities are being consumed in the process.

The following will raise some questions about the merits of the emphasis on foreign-language instruction. While answers cannot be provided in each instance, the underlying reasoning resulting in the new emphasis can be explored.

1. Can we expect to have students speak a foreign language reasonably well after taking a language in grade school, high school, or college?

Supporters for teaching a foreign language to the majority of the school population often indicate that many foreigners know many languages, and therefore, we should also. This needs a close look. It may be that multi-lingual citizens of other nations master languages because of necessity due to proximity of another country with a different language, and therefore, have the opportunity and need of practicing the second language on a continuing basis. Our students rarely have these opportunities.

2. What is the forgetting rate of a foreign language once the language has been learned?

This question assumes that the student has learned the language reasonably well but, like most high-school or college graduates, he will not have an immediate opportunity to put the language to practice. How much is forgotten after six months, two years, or five years of inactivity? Most will remember how to say "yes," "no," "thank you," and a few other words. If the forgetting rate is great, perhaps we are not accomplishing the things that we think we are in the area of foreign language.

3. How does a person select a language for study when the possibility of using that language lies far in the future?

The number of students leaving

school and going directly to a country of the language they have studied is small. Certainly Americans are traveling more, both as tourists and as businessmen. As for touring, the nationals have learned English as a matter of economic necessity. And for business travel, there appears to be little to guide a student in selecting for study a language that will be important and useful at a remote future date.

4. Has research demonstrated whether professional people such as doctors, engineers, or chemists actually need any language other than English to carry out their work?

For many years school counselors and others have been advising students as though the answer to this question was an unqualified "Yes," and that to obtain a Ph.D. a reading knowledge of several languages is required to do research. Are these statements valid? It would be interesting to survey the professions, including research scientists, to determine the extent to which they use a foreign language in their profession. It may be that nearly exerything of importance is translated into English and is available in professional journals.

INTERNATIONAL VALUES

5. Does learning a foreign language help in understanding another culture?

That knowing a foreign language helps to understand other cultures and leads to better international understanding is one of the classic reasons given for studying a second language. Is this true, or is it wishful thinking? If it is the understanding of other cultures that we desire, perhaps a more direct study of the culture, rather than learning the language, would be more profitable. Some useful research might be done to enable us to state precisely what we mean by "understanding of a culture."

6. Does learning a foreign language assist international understanding?

It is possible that we have overestimated the value of a second language as an aid to international understanding. There may be factors much more important. France, Germany, and other European countries are examples of where understanding of each other's language has not promoted the cause of peace to any notable degree.

WHEN TO BEGIN

7. Under present circumstances, where and when is the best place and time to begin the teaching of a foreign language?

The familiar saying, "The younger the child, the easier it is to learn a language," is seldom denied. However, unless a continuous follow-up program is systematically applied, how much of the language will the youngster retain? Many people know of instances where a youngster of four or five years returns to the United States after a few years in a foreign land and, as the saying goes, "speaks the language like a native." Then, after three or four years of disuse, the child almost totally forgets the language.

The most effective placement for foreign-language training, in order that a person can really use it, would seem to be just prior to going to a foreign country where the language would be used. Most of the factors conducive to a good learning situation are present with this placement, namely, motivation and the opportunity to put the language to use under realistic conditions. Effectiveness of this type of placement has been demonstrated by the armed forces, State Department, private business, and by individuals.

Our secondary-school students are not easily convinced of the value of learning a foreign language for some possible use in the future. They are more the realists than their elders, in this case. The one conclusive argument that we have is that a language is a requirement of the university or college. Students, knowing there can be little gain in questioning authority of the university's requirements, invest classroom and home-study hours in something of doubtful value.

SUGGESTIONS

Research on some of the questions raised here might give us more confidence in our program and certainly would be more convincing to our students. I also suggest consideration of the following items. The suggestions are based in part on first-hand experience in observing the usefulness of a second language while working in a foreign country.

Offer an elective, exploratory course in foreign languages to all students in junior-high school, senior-high school, and college. The purpose would be to expose students to a language and provide opportunity to determine if they have particular ability for languages. This would assist students and counselors while considering career choice, and would demonstrate to students that there are other ways of communicating and stating ideas, in addition to their own language.

Next, counsel students having a possible need of a second language in their careers into a language program. This would be equivalent to programing mathematics and science for students intending to enter science or engineering fields. Students planning careers in foreign service, the military, foreign business, or teaching languages are the students who should be counseled to take as much language as possible.

The final suggestion is that, if we are to continue foreign language instruction as it is now, we ought to restate our objectives in realistic terms and in line with what research may indicate is possible. We thus will have goals that students can expect to attain. Let us not attempt to fool the students and ourselves with unrealistic objectives. •

Preparing Children to Use Reference Books

LEO FAY, THOMAS HORN and CONSTANCE MCCULLOUGH

In Improving Reading in the Elementary Social Studies

"WHY did some western communities become ghost towns?" "What makes grasshoppers spit tobacco juice?" "Where is the geographical center of the United States?" Dealing with questions of this nature is an important part of the teacher's responsibility. How they are handled will influence greatly the child's learning experience.

On encountering such questions, the teacher may respond in different ways: He may know the answer and give it. He may know the answer but may ask the child to look and find it for himself. He doesn't know the answer but finds it for the child. He doesn't know the answer but asks the child to search for it. The teacher's choice of response will determine the level and extent of experience the child will gain with sources of information.

Actually, children are "ready" for experience with reference books and sources of information just as soon as they can formulate a question.

In the kindergarten and primary grades much information is provided by teachers or resource persons through oral communication. Also, books and typical references are used *by* teachers *with* children. As pupils begin reading printed informational material, they must begin developing the ability to discriminate intelligently between possible sources of knowledge.

There is available today a great wealth of reference materials. Little imagination is required to see the advantages of being skilled in using multiple sources in locating information as compared to single-text teaching and teacher "telling." The ability to use and adapt location skills with respect to specific sources of information is tied closely with intelligent discrimination between possible sources.

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Getting pupils ready to use reference books and library resources begins even before their reading skills are sufficiently developed for independent reference use. Just as parents and teachers read to youngsters to encourage interest in books and reading in general, various sources of information are read or shown to children in answer to their questions. From time to time, pupils' questions are answered by the teacher's question, "Where do you think the best place would be to find the best answer?"

WHERE TO LOOK

There are several possible response levels in answer to the question of where to look for specific information. Consider the problem of where to find the most information about major breeds of dogs. The pupils must discriminate between the various possibilities. The individual pupil may consider as possibilities a basal reader, children's magazines, a dog book, an encyclopedia, a nature-study book, an outdoor magazine, *Tramp, the Sheep Dog,* or *The World Almanac.* It is only through *use* of different sources that children build a basis for discrimination.

With experience, children will pass by a story about a dog or an outdoor magazine and go directly to encyclopedias or a book about dogs. Some information might be found in a story or a magazine, but the other two sources soon are learned to be known as "best bets."

The following are examples of the kinds of questions children must answer in using reference books and library materials.

If you wanted to know what countries are southwest of Brazil, which would you use. A map, an encyclopedia, a history book, a dictionary?

If you wanted to learn about ants, which of these would you use: *Handbook of Nature Study,* an atlas, a history book, a world almanac?

Which tells what insurance companies have offices in Chicago: Yearbook of the United States Department of Agriculture, classified Chicago telephone directory, *Community Health Organization, Statesman's Yearbook?*

LOCATION SKILLS

Looking for answers to such questions directly involves children with the location skills and with reference materials. As various sources are used, children come to recognize the ways information may be organized, *i.e.*, some encyclopedias are arranged alphabetically and others are by topics. Pupils become familiar with the help provided by tables of contents and indexes in single volumes and with index volumes which accompany complete sets of references. They learn to use key words, guide words, cross references, visual materials, and bibliographies in the process of preparing and organizing information for presentation.

The basic step in preparing children to use sources of information is the *need to know.* This step is the primary motivation in all social studies and science instruction.

One of the more frustrating experiences children immediately go through is not being able to find certain information. In some cases, their location skills are inadequate or their comprehension is insufficient to insure satisfying use of reference materials. In other cases, the information is not contained in the available sources. Consistent use of references in addition to textbooks is the means whereby children learn to make reasonable decisions concerning whether needed information is really not available, or that the information is available but they cannot locate it.

Getting children "ready" to use reference books and library materials is a continuous thing. Beginning with the need to know, then developing the knowledge of the best sources of information, learning the location skills, and increasing comprehension—these are things which extend into adult life. The complexity of needs and skills may change, but faced with increasing complexity, the successful individual learns to get himself "ready" to use higher level research sources.

In their enthusiasm to get children ready for and to use references and library materials, teachers and librarians sometimes fall into the trap of overdoing. Children may begin to hesitate to ask even offhand questions for fear they will immediately be sent on a search for an answer. When to tell the answer and when to have the pupils look it up is a matter of judgment. Reasonable use of research techniques is fine, but placing the child in the position described by the well-known statement, "I learned more about penguins than I cared to know," should be avoided.

Having references and library materials available is essential to getting children ready to use them. Unfortunately, a major instructional need is more adequate library facilities. The actual use of sources of information takes place through purposeful problem solving. Also, children often find that a general perusal of references for their own sake is both satisfying and interesting. The development of knowing about and using references and library materials begins in the first grade and continues throughout the school years and into adult life. •

THE U.S. Government Printing Office (GPO), perhaps the largest and most complex printing establishment in the world, observed its 100th anniversary in 1961. One hundred years ago, the GPO had 26 presses and eight binding machines. Today it has 175 presses, 258 binding machines, and 350 type composing machines.

Teachers Save Time

Dictation Machines for Theme Correction

ROBERT LUMSDEN

In Chicago Schools Journal

AN experiment of significance to teachers of high-school English everywhere was conducted recently at Evanston Township High School, Illinois. The experiment, which sought to find a way to save time in the grading of student papers, proved conclusively that the high-school English teacher can reduce by 50 percent the time he spends in criticizing compositions. All he needs to effect this appreciable saving of time is a dictation machine and some stenographic help.

The average student theme is about two handwritten pages in length. An experienced teacher can read and red-pencil errors in such a theme in about three minutes. But that same teacher, if he is conscientious, spends another five to 10 minutes writing comments on the theme. This highly important task requires about two-thirds of the total time spent in processing a student paper.

Three teachers devised a plan and experimented for a month attempting to effect time saving in grading papers. Their plan and experiment focused on the amount of time spent in writing the critical and helpful comments on the student's paper. Here's how it worked.

Each of the three teachers carrieds sets of student themes home as usual. Each teacher read and used his red pencil on the theme in the usual manner. After performing the reading and red-pencil tasks, the teacher spoke his criticism into a dictation machine. Because he could speak as much criticism in two minutes as he could write in eight or ten, he could achieve a significant saving in time on each paper.

The next morning, the teacher brought the set of corrected compositions and the dictation disc to school and turned them over to a stenographer. The stenographer typed the dictated criticisms from the disc, typing them one after another onto a long roll of paper. After typing, the criticisms were cut from the paper roll and stapled to the proper student paper, which had carefully been kept in consecutive order. The papers were now

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ready to be returned to the students, complete with a lengthy and neatly typed note of evaluation.

At the outset of the experiment, the most optimistic teachers had hoped that using the dictation machines might result in a 33 percent saving in time. All three participating teachers were surprised to discover that their experiment had proven that 50 percent saving in time had been achieved.

The results were established by having the teachers involved in the experiment time themselves carefully while grading papers by conventional means and again timing the operation while using the dictation machines.

One teacher graded 44 papers in 350 minutes by conventional means. She graded 44 equivalent papers in 180 minutes by recording her critical comments. A second teacher graded 116 papers in 1,728 minutes conventionally, requiring only 705 minutes to grade 116 equivalent papers while using the dictation machine. The third teacher graded 98 papers in 830 minutes working in the traditional manner; he graded a like number of equivalent papers in 398 minutes while using a machine.

As the figures show, each teacher reduced by half the time required to process student compositions. Yet the student still received the benefit of the teacher's commentary.

As striking as these figures are, the dictation machines and the stenographer's time do cost money, and it is likely that many teachers and administrators desiring to experiment with this method would find themselves hampered by lack of funds. In that event, some thought might be given to the possibility of having students in advanced stenographic courses do the transcribing if money is not available either for stenographic help or lay readers. Obviously, this is a less desirable procedure, but it might prove to be an improvement over the traditional method of correcting papers.

The personnel at Evanston Township High School are going to explore this method further. Two dictation machines and one transcribing machine have been purchased for this purpose. Five teachers have given up their lay readers; they will share the dictation machines and will be given secretarial help instead. The results of the month-long experiment appear to indicate that the teachers will receive more help per dollar with the dictation method than by spending the money on lay readers. Careful records of time and cost will be kept throughout this school year to determine if that estimate is correct.

At this stage, the plan appears to make it possible for an English teacher to correct all his students' papers, certainly a desirable end, at the same time that it meets the pleas being made today for employment of para-professional help that will free the teacher for tasks that are uniquely his. •

Extreme Care
Is the Best Protection

Who Pays for Shop Accidents?

DENIS J. KIGIN

In Safety Education

ALONG with the tremendous growth of the industrial-arts curriculum, tools and machines have been brought into the schools to present a more hazardous situation than before. In spite of built-in safety guards and devices and safety programs, accidents do occur in school shops. Inevitably, some law suits involving the teacher result.

Any school accident resulting in medical expense may culminate in a suit for damages in which the individual teacher, the school district, or both, may be named as the defendant. However, there have been cases of liability brought jointly against the teacher and the school district in which the teacher was held liable and the school district declared immune.

School-related injury cases are generally based on allegations that lack of proper supervision caused the injury. It is important that teachers realize the serious implications of this, not only in consideration of the safety of their students, but also because of the legal consequences.

The matters of teacher liability and school-shop safety are closely related; in actual practice they supplement each other. The primary purpose of safety instruction is to prevent student injuries. The legal aspect does not become active until—and unless—there is an injury. The consequences which follow an injury are the important considerations from a legal standpoint. From this it can be interpreted that a secondary purpose of safety instruction is to prevent or reduce the possibility of legal involvement.

In many shop classes, students are permitted or required to operate potentially hazardous machinery. While a student assumes some risk in a school shop, he does not assume the risks of defective equipment, incompetent instruction, or inadequate directions to accomplish some task beyond his capabilities.

Under the law, minor children are held only to that degree of care which would be determined as standard for average children their own age, and not to the same degree that is expected of adults. This implies that since students are minors, they enjoy a certain immunity from the law in regard to their own negligence.

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In many states school districts are also immune, operating under protection of governmental or common-law immunity. This means that the school district, as a governmental subdivision, cannot be sued for negligence. However, a number of state courts are beginning to doubt that the school district's common-law immunity is legally feasible. It is probable that in a state such as California, where the law allows the school district to be sued, injured students and their parents would be less likely to bring suit against a teacher. But this does *not* relieve the teacher from responsibility nor does it grant legal immunity to the individual teacher.

The legislatures of a few states have passed laws requiring or permitting school boards to reimburse employes who are held liable for injuries. These "save harmless" laws provide that the school district "save" its employes from financial "harm" after any loss incurred during the course of assigned school duties.

By virtue of his position, and by reason of his assigned duties, the public-school teacher assumes some degree of responsibility for the welfare and safety of the students in his charge. A teacher of adolescents is presumed to know the vagaries of the teen-age mind, is expected to anticipate his students' actions, and to keep them from unexpected difficulties by direct supervision.

The activities that shop students engage in place the shop teacher in a vulnerable position—he has greater responsibilities and must be better prepared to meet them. He has a moral and legal obligation to educate the students entrusted to him; he is responsible for making the learning process safe.

NEGLIGENCE

Negligence is the most common reason for holding a shop teacher liable for student injuries. There are certain conditions under which a teacher is likely to be considered negligent if his student is injured. Paramount among these are: lack of proper safety instruction; lack of due care with reference to age and maturity of pupils; and lack of insistence that proper safeguards be used. In some instances, although it may be found that the apparent cause of the accident was student carelessness, the basic responsibility rests with the teacher.

The test of foreseeability is the first criterion used to determine whether or not there is negligence. What should a reasonably prudent shop teacher foresee as unsafe conditions and what possible consequences might result?

Tools may be safe only to the degree that the operator is safe. It is the responsibility of the teacher to see that tools and machines are used in a correct and safe manner. Should the teacher fail to act, he is negligent by reason of omission rather than commission, which can be interpreted as a lack of foreseeability. Further, the teacher should be able to anticipate the consequences of an accident. This means then, that it is not only important for him to foresee a possibly dangerous situation, but also to be aware of the consequences of an accident, should the condition be allowed to exist.

It is not implied that shop teachers are expected to conduct themselves in a manner such that students avoid all situations where it is possible to be injured. If this were so, the practical nature of shop work would be hindered to a degree nearing impossibility. It is the teacher's duty to maintain equipment in safe working condition or to report unsafe conditions to the proper authority. The law says that the teacher is responsible.

The best means to avoid student injuries, and the legal consequences, is a well-maintained safety program involving instruction, proper maintenance of equipment and tools, use of safety clothing and accessories, and communication among teacher, supervisors, students, and parents.

If shop teachers are to be held liable for injuries to students, it may be expected that they will hesitate to make full use of some educational tools and equipment. Unless school districts are liable, there is the possibility of increasing pressure to bring suit against the teacher. In the area of school district immunity, the law is not static and there is reason to believe that there may be a shift in the thinking of courts on the whole question.

As of now, the final judgment of who is negligent, and under what specific conditions, is difficult to determine. Negligence is usually decided by a jury of laymen, not by professional educators. Since laymen determine the liability, the actions of the teacher must clearly bear the sign of common sense.

In the past, salaries of teachers have not been of a nature to encourage lawsuits against them. The trend to increased salaries, and the resultant property holdings, could be a factor in litigation against the teacher.

The best protection a shop teacher has from liability lies in the use of extreme care in all cases where it is possible for an injury to occur. When safety instruction is at the optimum level, both pupils and teachers are protected, and there is little need for other types of insurance. Prevention of accidents is far more desirable than legal compensation or rehabilitation. •

TEACHER-ADMINISTRATOR joint committees seem to be the most effective way of administering a school safety program. The effects of such a committee in one New York school cut school accidents by 70 percent in three years.—Frederick Shaw in *A Study of Teacher Accidents.*

Implications of a Chemical Theory of Reading Disability

PATRICIA M. CARRIGAN

In Journal of Developmental Reading

EDUCATIONAL psychologists interested in the disabled reader have viewed the subject in various ways—most often from the standpoint of the symptoms which constitute reading disability, or in terms of certain *characteristics* (physical, perceptual, behavioral, psychodynamic, etc.) which are found with some regularity among cases of reading disability.

From another viewpoint, I should like to look at the disabled reader as belonging to a larger population whose members share a common impairment in the ability to learn. In this group we find the *slow learner*, whose handicap is not confined to the area of reading; the *hyperkinetic* individual, whose distractability makes it hard for him to concentrate long enough to learn; the *delinquent*, who may present a variety of learning problems aggravated by frequent absence; the *neurotic*, enmeshed in his own problems with little energy to devote to other things; the more severely *psychotic*, etc.

Because learning plays an important role in adaptation, failure in learning can be looked on more broadly, perhaps, as a failure in adaptation, stemming from a functional or structural deficit in some part of the adaptive equipment—in perception, or in intellectual endowment, or in physical energy, or in personality. Since reading disability may reflect a deficit in *any* of these areas, an adequate theory must handle them all. In so doing, it ought to shed some light on adaptive deficits in general and, hence, on other disorders marked by such deficits.

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The so-called chemical theory of reading disability grew out of a research program at the University of Michigan reading clinic concerned with the severely disabled reader—a retarded reader who fails to make substantial gains in reading after prolonged and intensive remedial instruction, and despite appropriate attention to such problems as vision, hearing, parental pressure. Our research led eventually to consideration of the mechanism of synaptic transmission, culminating in a theoretical model based on current notions about the chemical mediation of nerve impulses.

SYNAPTIC TRANSMISSION

Synaptic transmission appears to depend on two kinds of substances. One, which might be called a *circuit-maker*, is responsible for establishing temporal connections between nerve cells, so that an impulse can move along from one cell to the next, i.e., cross the synapse. The other substance might be called a *circuit-breaker;* it destroys or inhibits the action of the circuit-maker, severing the connection and freeing the cells to participate in the transmission of a new impulse.

Behaviorally, the action of the circuit-maker is analogous to the fixation of attention on some stimulus; that of the circuit-breaker to the *dis*engagement of attention and its subsequent freedom to move elsewhere. Just what chemical substances mediate these important functions is a problem of current concern to neurophysiologists. Of the many substances suspected of involvement in synaptic transmission, acetylcholine (ACh) and cholinesterase (ChE) have been among the most investigated; available evidence points to these two enzymes as the crucial substances in at least some parts of the nervous system. In the following, the abbreviations ACh and ChE will designate circuit-making and circuit-breaking activity, respectively; it should be kept in mind, however, that other substances are almost certainly involved.

There is evidence for assuming that the relative rate of production of ACh and ChE varies among individuals, that such variations have predictable effects on perceptual and cognitive behavior, and that those effects are manifested in performance on perceptual and cognitive tests. From their performance on such tests, it has been argued that "normal" readers can generally be thought of as producing normal quantities of ACh and ChE and that *atypical* readers—advanced as well as retarded—produce abnormal amounts of one or both substances.

These considerations give rise to the first two dimensions of our theoretical three-dimensional "cube" model. The first dimension, *balance,* has to do with the relative amounts of ACh and ChE available; the second, *concentration level,* is concerned with the amount of each substance produced singly. *Anxiety* is the third dimension.

The *normal* reader, balanced at a normal level of production, is found in the middle of the theoretical model. Balance at a high level —overproduction of both ACh and ChE—appears to be linked with advanced maturation and characterizes the superior reader. Balance at a low level is associated with delayed maturation and reading behaviors of poor short-term memory, extremely limited sight vocabulary —virtually no reading skills. Other reading disability syndromes are thought to reflect a chemical imbalance; normal production of *one* of the two substances and either an excess or a deficiency in the other. Without going into its chemical substrate, the third dimension, anxiety, seems in most cases to exert a circuit-breaking effect similar to that of ChE. Anxiety, however, interacts with the other two dimensions in complex ways; it may be disruptive in ChE-dominant groups, beneficial in ACh-dominant groups.

Within the framework of this model, reading-disability symptoms as well as mental illness symptoms can be accounted for.

It is evident that the ultimate validity of the theoretical model must be determined empirically. If essentially correct, it is certainly oversimplified, and necessary refinements must come from future research. As it stands, I think it has some important implications for educational psychology.

Until recently, treatment of the various disorders of adaptations has been virtually limited to *modification of the environment*. The hyperkinetic child is placed in a nonstimulating atmosphere; the slow learner in a special classroom; the severely disturbed psychotic in a hospital. These approaches are important, but the fact remains that they are not always effective, and, more important, *they accomplish little or nothing in the way of altering the individual's capacity for maladaptive behavior.*

One important implication of the model is that the concept of treatment must be extended to include *modification of the individual.* That such modification holds great promise is suggested by the encouraging results of the use of medication with severely disabled readers and by the demonstrated effectiveness of tranquilizers, energizers, and other drugs in management of psychotic illnesses.

A second important implication concerns the currently necessary emphasis on treatment. As the model is refined—or replaced—we should be better able to specify the salient features in the behavior of the individual, in his development, in his family history, etc., which are associated with later development of these disorders. We should then be in a better position to recognize them in their incipient stages and to prevent them from becoming full-blown. In time, the emphasis may be shifted from treatment to prevention.

It should be apparent that such goals will not be attained without cost. These accomplishments hinge on our willingness as a group to undertake the necessary research—in itself a Herculean task. They depend also on our willingness as individuals to reject such dead-end diagnoses as "He isn't trying," to become acute observers—knowing both what to look for and what to do when we find it—and, perhaps most challenging, to educate our colleagues in the various professions to do likewise. •

Health Education in Secondary Schools

ARTHUR L. HARNETT

In Education

THERE is in effect today a tremendous cooperative effort toward improving the health of children. This effort includes a focus of attention on the part of individuals within the medical professions, all the psychology fields, public health personnel, and social workers in a determined and successful attempt to maintain and improve the health of this country's children.

In addition, these individuals interested in child health improvement have been challenged, motivated, and supported by professional, scientific, social, and educational organizations ranging from White House conferences to community groups trying to develop effective ways of making progress on a local basis.

In recent years, an increased interest in health education on an international world-wide basis has resulted from the emphasis placed on health by the World Health Organization (WHO) and the United Nations Educational, Scientific, and Cultural Organization (Unesco). All told, it amounts to an unprecedented, massive program of attack on disease, defects, and poor environment—all the causes of human misery as well as death and disability.

In a setting of all this activity, some concern is noted that education for health, by its very diffuse nature and broad definition, often seems to be struggling for existence in the modern secondary-school curriculum. Among the several reasons for this concern is the present emphasis on science (and the belief by some that the science teacher should be the health teacher); the shortage in many schools of teachers soundly prepared in health education; lack of motivation and interest among students; and a lack of leadership in coordinating an effective program of health instruction in junior-high and senior-high schools.

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Today, health programs for schools must be cooperative community ventures, for modern health education does not—it cannot—depend on single individuals or specialities. A psychologist may be needed, support from a nutritionist may be needed, etc., for even with many fine personal relations with pupils a teacher cannot possibly cope with all health problems in a classroom. A most basic "must" is that the school administrator have a sound perspective of *education for health* as a responsibility of the entire school personnel working in harmony with community health agencies.

Health instruction in secondary schools should be concerned primarily with planned learning experiences. These experiences should be designed to influence the behavior of the boy and girl in the daily habits of living that already may have become routine and in the attitudes that can affect learning so easily.

SPECIFIC GOALS

When a boy or girl graduates from the twelfth grade, an adequate health-instruction program should have achieved certain specific goals. These are not all achieved in the high school but are a gradual accumulation of learnings over a period of time. The goals are:

1. A sound understanding of basic facts concerning causes and consequences of disease. An active desire to prevent sickness should be developed.

2. A workable understanding and use of competent health services: where to find help, when to seek help, the limitations of some services, and the dangers of using unqualified persons.

3. The ability to choose wisely from many thousands of products. These may be good, bad, or indifferent from a health standpoint. Judgment should be developed in buying, with discrimination in regard to advertising claims.

4. The ability and desire to keep self and surroundings free from hazards and threats of accidents and injury. A balance should be obtained between caution and adventure, so that life is a zestful experience rather than a fearful undertaking.

5. An understanding of the effect of alcohol, tobacco, and narcotic drugs on the body, and the social, economic, and psychological consequences involved in the use of these substances.

6. Consistent good judgment in regard to food and health. Sound eating habits should have been developed and good nutrition maintained in light of current recommendations of authorities and current practice.

7. Good development of the skills of living—the ability to get along with oneself and others. This includes an understanding of personal limitations and strengths, of human behavior, of the stresses of modern existence, and of the way to live successfully in and with modern society.

8. A wholesome attitude toward sex as an essential and natural part of human existence. Instruction should move young people from attitudes regarding sex as shameful, base, and harmful, to a concept of sex as a part of human personality and normal adjustment.

9. Active interest and participa-

tion in physical activity best suited to the individual. This is not so much something learned as something lived. It includes a variety of interests and skills so as to provide recreational and vigorous activity and a sense of healthful balance in physical endeavors.

10. A realization that health is not only a personal matter but a family responsibility, a community concern, and a world problem of great importance.

SUBJECT AREAS

In the junior-high school, emphasis may be planned to provide a sound understanding of the wonderful complexity of the human body, responsibility for personal care and daily hygiene, the values of physical fitness, first aid and the prevention of accidents, good nutrition, personal appearance, the effects of alcohol, narcotic drugs, and tobacco, the scientific basis of disease control, and good social relationships.

In the senior-high school, health instruction can include several broad areas of interest to the boy or girl rapidly maturing, preparing to enter an adult world, and assuming increasing responsibilities. Some of these areas may center around consumer goods and services affecting health; dating, preparation for marriage, and family living; heart disease and cancer education; community health responsibilities; occupational health; health organization on local, state, national, and world bases; health and safety aspects of civil defense; and personal adjustment. Driver education is often included in the eleventh grade, both on a classroom and behind-the-wheel basis.

The success of the health program lies largely in the realm of leadership and planning. The wholehearted support of the administration is an important factor, though many of the specific responsibilities can be delegated to others. The responsibility can be assumed by a health coordinator, either part-time or full-time as the job demands. The health coordinator should be qualified by experience, education, interest, and ability to plan and evaluate a long-range, comprehensive program, using full resources of school and community.

A health committee, sometimes called a school health council, can be invaluable in a decision-making and action program for the school. Membership on the committee or council may vary according to the size of the school and the number of agencies or resources available for help. While the work of this group may be varied enough to include school health services, school environment, school lunch programs, accident prevention, and physical education, the major emphasis should be placed on the specific problems of health instruction.

The school health team can be a functional aid in assisting the health coordinator as well as a democratic procedure in school administration. •

★ With Education in Washington ★

THE EDUCATION DIGEST WASHINGTON BUREAU

Categorical Approach. – Old-timers in the HEW Department classify programs and legislative proposals as being either "general" or "categorical." The 1957 school-construction proposal, which failed of enactment by five votes, was a "general" measure. It would have aided all states, all school districts, and, to some extent, every school.

Only a year later, Congress enacted the National Defense Education Act, which concentrates aid in certain "categories." It emphasizes guidance and counseling, science, mathematics, and modern foreign languages, for example. It aids, for the most part, only those schools, districts and states with projects, activities and interests that qualify for federal funds.

For good or ill, Congress almost invariably prefers categorical measures to general proposals, and the narrower the category, the better. To illustrate, the Post Office serves everyone, but there are few Congressmen interested in improving the postal service generally. On the other hand, educators were able last year to persuade Congress to grant second-class mail rates to otherwise qualified public-school publications hitherto denied this valuable privilege. It was a small bill, but there were those who loved it.

Its general school-aid bill having met defeat in the House last year, the Kennedy Administration is now trying the categorical approach this year. The outcome will probably not be resolved during this school year but during this new legislative year, in contrast to 1961, history and the folkways of Congress will be on the side of the Administration.

New Categories.—In essence, the President proposes adding new categories to those secondary schools and teachers now aided by NDEA and the National Science Foundation. His legislative and budgetary recommendations for "quality secondary education" add up to a 5-year, $750 million program, of which $120 million would be voted for the first year.

This initial sum would be split between projects to improve instructional services and programs of advanced study for teachers. Some $54 million would be provided for summer institutes and paid sabbaticals for teachers. Summer stipends would be $75 per week, plus $15 per dependent, plus a travel allowance. Sabbatical grants would be $5,000 for one year of college or university study.

(As the President proposed additional categories of high-school teachers to be eligible for summer study stipends, the National Science Foundation was announcing an experimental elementary-school summer institute program. Over $700,000 has been granted to colleges and universities in 18 states for 21 summer institutes. Teachers in grades 1-6, supervisors and principals concerned with instruction in science and mathematics are eligible.)

States and colleges would share the $66 million that would be available for improvement of instructional services. Universities and colleges, especially teachers' colleges, would be eligible for grants to strengthen their teacher-training programs. States would be eligible for special project grants to develop new types of instruction or equipment, improve school libraries, or provide special programs for gifted, retarded, or underprivileged children.

Adult Illiteracy.—A 5-year, $50 million drive to eliminate functional illiteracy is also proposed by the President. The 1950 Census showed 9.5 million functional illiterates: people over age 25 with less than 5 years of schooling. A decade later, their number had dropped to only 5.6 million, of whom 2.6 million had never been to school.

Who are the illiterate? They are unevenly distributed among the states. Most are white—5.6 million, or a bit more than 6 percent of the white population over age 25. There are 2.2 million non-white illiterates, but these include nearly a quarter of the non-white population over age 25.

The Administration is not counting on the shocking number of functional illiterates alone to persuade Congress that its program should be enacted. It is also intimating that the Soviet Union has eliminated illiteracy, at least statistically, and is emphasizing that much of the adult public assistance burden may be traced in part to illiteracy. HEW officials say illiterates are "the last to be hired and the first to be fired."

To eliminate illiteracy, the Administration proposes four kinds of grants:

1. To colleges and universities for teacher preparation and development of special methods and materials.

2. To state educational agencies for administrative expenses of adult anti-illiteracy programs.

3. To states for pilot projects to demonstrate effective local programs.

4. To local school systems, through state agencies, for support of adult classes.

ETV Urged. – In Memphis, Tenn., notably, adults have been taught by television to read and write. Since there are more homes in the U.S. with television than there are with bathrooms, the Administration's support of Sen. Warren Magnuson's (D-Wash.) ETV-aid measure might also be counted in the anti-illiteracy drive.

Last year, HEW Secretary Ribicoff opposed Sen. Magnuson's bill to build an ETV facility in every state until aides advised him that President Kennedy had endorsed the proposal as a Senator and Presidential candidate. This year, HEW is solidly behind the 5-year, $25 million proposal, which would make $3.5 million available in its starting year.

U.S. Commissioner of Education Sterling M. McMurrin has released the report and recommendation of a nine-man nongovernmental group which studied ETV for more than a year. In rather general terms, the report calls for a national policy for the further development of ETV facilities, programing and personnel.

Dr. McMurrin said steps would be taken immediately to carry out, but on an exploratory basis, the recommendation for establishment of national and regional exchange centers for educational television teaching materials. This and other ETV projects and studies will be instituted under the educational media provisions of the NDEA.

Larger Appropriation?—The rest of the Administration's 1962 education program, itemized in a special message to Congress expected early this month, includes bills held up last year by the fight over general aid to the schools. The Administration wants a five-year, $2.1 billion program of construction loans and grants for college classrooms and college scholarships for able but needy students. For medical and dental schools, the Administration has endorsed a five-year, $600 million bill sponsored by Sen. Lister Hill (D-Ala.), respected chairman of the Senate Labor and Public Welfare Committee.

The President's drive to enact these bills may be hampered by his HEW Secretary's reported plan to campaign this fall for the Senate seat of Sen. Prescott Bush (R-Conn.). The election is 10 months in the future, but Secretary Ribicoff could face opposition in the primary election on June 8. In any event, he will be keeping as many speaking engagements in his home state as possible, despite his Washington duties.

Veteran Washington observers believe the HEW Secretary's replacement will be either Assistant Secretary of State G. Mennen Williams, the former Governor of Michigan who was reputed to be President Kennedy's original choice for HEW, or possibly Ohio's Governor Michael DiSalle.

More than whose name heads the organizational chart, educators should be interested in whether Congress will continue to manifest a preference for categorical rather than general forms of aid to education. For if most of these proposals are enacted, as now seems likely, they will also furnish proof of an undeniable Washington maxim: "The smaller the category, the larger the appropriation."

Classroom Construction.—In the wake of a new record in classroom construction, the national classroom shortage has been reduced by about 15,300 rooms, according to figures released last month by the U.S. Office of Education.

The survey, the eighth in a series of annual surveys conducted with the cooperation of the state education agencies, showed a total shortage of 127,200 public elementary and secondary classrooms at the opening of school last fall, compared with 142,500 a year ago.

There are indications in the reports, however, that the gain may be short-lived owing to an expected decline in classroom construction this year despite continuing enrolment increases.

The current shortage of 127,700 classrooms as reported by the states consists of 60,200 needed to relieve overcrowding and 67,000 needed to replace unsatisfactory facilities. Approximately 1,694,000 children were in excess of normal classroom capacity.

The survey showed that 18,700 rooms were abandoned during 1960-61 because of population shifts, consolidation of school districts, and obsolence of buildings. The average for the last four years has been 17,600.

The number of classrooms built in the last six years has averaged 69,100 rooms a year. The backlog of needs also has remained relatively stable for several years.

One Out of Three.—Reviewing long-established federal programs often affords useful perspective amid the hue-and-cry of current legislative struggles. A case in point is the National School Lunch Program, in its day a hard-won Congressional victory.

Sixteen years ago, permanent legislation was enacted. Now one out of every three elementary- and high-school students is eating a well-balanced noon meal at school under the federal-state-local program. Some 64,000 participating public and nonprofit private schools comprise the largest segment of the entire food service industry.

The more than 14 million youngsters who benefit daily pay about 60 percent of the cost of their lunch—an average of 27c per lunch—except for the 10 percent who get their lunches free or at reduced prices because of low parental incomes.

States and communities buy about four-fifths of the food for the billion-dollar program from local suppliers, at a cost this year of $610 million, of which the federal government provides $98.6 million. Washington is also buying $70 million worth of food this year and furnishing over $100 million worth from its ample stocks of surplus commodities.

This means that states, cities, and counties are putting up about $511.4 million for school-lunch foods, nearly all spent locally, and some $200 million for local services. But the pennies paid by the children cover all but $111.4 million of the $711.4 million total ostensibly expended by state and local government. •

• Educational News •

CHANGES IN SUPERINTENDENCIES:

Los Angeles, Calif.: **Jack P. Crowther,** formerly associate superintendent, has succeeded **Ellis A. Jarvis,** retired.

Oak Ridge, Tenn.: **Lavere P. Cushman** has resigned.

Oak Park, Ill.: **Lester B. Ball,** formerly superintendent at Millburn, N.J., is now superintendent.

Lansing, Mich.: **Forrest G. Averill,** deputy superintendent, has been named successor to **Dwight H. Rich** on his retirement in August.

Amsterdam, N.Y.: **Raphael J. McNulty,** formerly director of secondary education, has been appointed superintendent.

Beloit, Wis.: **Leonard A. Britelli,** formerly of Two Rivers, Wis., is now superintendent.

Englewood, N.J.: **Harry L. Stearns** has announced his retirement, effective Sept. 1.

Knoxville, Tenn.: **Tom Johnston** has retired.

Rochester, Pa.: **Robert P. Barner,** superintendent since 1934, has announced his retirement, effective July 1.

COLLEGE PRESIDENTS:

University of California, Santa Barbara: **Samuel B. Gould,** chancellor, will become president of Educational Television for the Metropolitan Area, New York City, on July 1.

TEACHER-TRAINING INSTITUTIONS:

University of Michigan, Ann Arbor: **Ned A. Flanders** has been named professor of education.

University of Arizona, Tucson: **Richard F. Whitmore,** superintendent, Nebraska City, Neb., has been named associate professor.

Stanford University, Palo Alto, Calif.: **Lewis B. Mayhew,** formerly director of institutional research and evaluation services, University of South Florida, Tampa, is now professor of education.

San Jose State College, Calif.: **Henry W. Gunn,** retired superintendent, Palo Alto, Calif., has been named head of the department of educational administration and supervision.

Nebraska State Teachers College, Chadron: **Glenn Hildreth,** dean, retired in January.

University of Texas, Austin: **Thomas D. Horn** has been appointed chairman of the curriculum and instruction department, succeeding **Roy M. Hall,** now dean of education, University of Delaware.

George Peabody College for Teachers, Nashville, Tenn.: **David J. Mullen,** formerly of Bloomsburg State College, Pa., is now associate professor of education.

Harvard University, Cambridge, Mass.: **Robert H. Anderson,** director of the team-teaching project at Franklin School, Lexington, Mass., has received appointment to the University's first professorship in the field of elementary education.

OTHER CHANGES AND APPOINTMENTS:

Peter P. Muirhead, formerly director of the U.S. Office of Education's Financial Aid Branch, has been named Assistant Commissioner for Legislative and Program Development, succeeding **Ralph C. M. Flynt,** now Assistant Commissioner for Statistics and Research Service.

Deborah Partridge Wolfe, associate professor of education, Queens College, New York, has been appointed chief of education for the House Committee on Education and Labor, to serve as liaison officer between the committee and the Department of Health, Education, and Welfare.

George Matthews Modlin, president of the University of Richmond, has been elected president of the Association of American Colleges.

New York Election

NEW YORK CITY teachers, in a citywide election in December, chose the United Federation of Teachers, local affiliate of the AFL-CIO's American Federation of Teachers, as their official bargaining agent.

The election ended a long controversial campaign as to who should be the teachers' bargaining agent.

The Teachers Bargaining Organization, which was formed with the support of the National Education Association, came in second in the election. The Teachers Union, once an affiliate of the CIO and later dropped on charges of communist domination, was third. A total of 662 out of the more than 33,000 ballots cast signified that they wanted no union representation.

Although the 20,045 votes cast in support of United Federation of Teachers (UFT) is said to be several times that of actual membership in the UFT, observers say that it indicates a vote of confidence in labor-union techniques for dealing with the city's board of education.

The *Saturday Review* points out that the significance of the New York vote lies in the question it raises as to the direction in which the teaching profession as a whole is moving. "Does the future lie with the AFT and trade unionism, or with the somewhat qualified professionalism of the National Education Association? Will the New York pattern be repeated in other large cities across the country and subsequently spread to the surrounding suburbs? . . . (The question) will probably be effectively settled in the next very few years."

Free or "Fee" Schools

FREE schools are in danger of becoming "fee" schools, according to Charles F. Carroll, superintendent of public instruction for North Carolina.

Mr. Carroll recently told the state board of education that fees charged in North Carolina nearly equal the total raised for elementary and secondary schools by local taxation. He cited such fees as $14 for home economics, $11.50 for typing, and $3.93 for publications. His study showed 34 different types of fees charged in public elementary schools and one public high school with a flat "instructional fee" of $35.50.

Mr. Carroll indicated that the fee problem was national in scope and that it was a factor in causing some to drop out of school.

AASA Election

NATT B. BURBANK, superintendent of Boulder Valley School District, Colo., is the new president-elect of the American Association of School Administrators. He won the office in a mail balloting in December.

Other candidates (nominated in an earlier mail balloting) were Evart W. Ardis, director of the bureau of appointments and occupational information, University of Michigan; and Harold L. Richards, superintendent, School District 28, Blue Island, Ill.

Mr. Burbank will become president of the AASA in March 1963. Irby B. Carruth, superintendent at Austin, Tex., will move up from president-elect to president this March, succeeding the current president, Benjamin C. Willis, superintendent at Chicago.

The AASA will hold its 1962 convention in Atlantic City, Feb. 17-21. Included among the speakers at the convention are James E. Webb, administrator, National Aeronautics and Space Administration; Ralph J. Bunche, undersecretary, United Nations; Drew Pearson, newspaper columnist; and Newton N. Minow, chairman, Federal Communications Commission.

New IIE Building

PLANS have been started for the erection of a new 14-story glass-facade building on the United Nations Plaza, New York City, to be known as the Center for International Education.

To be built by the Institute of International Education (IIE), the center will continue the 42-year-old tradition of being headquarters for thousands of students from all parts of the world.

Henry Cabot Lodge, who is honorary chairman of the IIE board of trustees, launched the $4,500,000 fund-raising campaign for the building on January 9. Approximately $2 million has already been raised, he said.

Catholic Schools Study

THE Carnegie Corporation of New York has announced a $350,000 grant for an intensive study of Roman Catholic parochial schools, both elementary and secondary.

To be examined will be curriculum, administration, teacher training, and the quality of academic achievement in the U.S.

On the guidance committee for the study are the Rev. T. M. Hesburgh, president, University of Notre Dame; George N. Shuster, retired president, Hunter College, New York; and Msgr. Frederick G. Hochwalt, executive secretary, National Catholic Education Association.

Language Training

ARRANGEMENTS have been completed to provide special training for 4,487 more language teachers in order to strengthen and expand instruction in foreign languages in the schools, U.S. Commissioner Sterling M. McMurrin announced in January.

The training will be provided at 85 special language institutes to be conducted next summer and during the 1962-63 academic year. Cost of the project will total $7,161,097, all of which will be paid by the government under the NDEA.

Teachers will be trained in the newest instructional methods and will receive intensive training in learning to speak and understand the language they teach. Only a few states now require teachers in public elementary and secondary schools to be able to speak the language they teach.

MPATI Incorporates

THE Midwest Program of Airborne Television Instruction, the well-publicized flying classroom project, made its first step in January toward becoming a permanent organization, owned and operated by member schools in six states, when it became incorporated as a non-profit educational institution.

Among the 62 incorporators assuming temporary management of the airborne TV instructional system were state superintendents of instruction, school superintendents, university presidents, members of MPATI's original 15-man governing council, and industrialists and civic leaders. They will serve as an interim, first board of directors until member schools in each state elect a new board next fall.

The $8,500,000 project will continue to be supported by foundation and private industry money until the end of the experimental phase in May. Afterwards it is planned to shift from complete foundation and grant support to 90 percent or more support by member schools.

Mobile Classrooms

MOBILE classrooms are being tested in Chicago in an effort to take 9,000 children off double sessions.

Two demonstration units were set up in January, and Superintendent Benjamin C. Willis has asked the board of education to buy 150 of them after specifications have been worked out.

The demonstration units provide a classroom area of 20′ x 36′. They have fluorescent lights, electric heating and ventilation, and lavatories for boys and girls.

DATES OF THE MONTH:

Feb. 14-17, American Association of Colleges for Teacher Education, Chicago, Ill.

Feb. 17-21, American Association of School Administrators, Atlantic City, N.J.

Feb. 24-28, National Association of Secondary-School Principals, St. Louis, Mo.

DATES OF THE COMING MONTHS:

Mar. 4-7, Association for Higher Education, Chicago, Ill.

Mar. 4-8, Association for Supervision and Curriculum Development, Las Vegas, Nev.

Mar. 9-14, National Science Teachers Association, San Francisco, Calif.

Mar. 24-28, Department of Elementary School Principals, NEA, Detroit, Mich.

Mar. 25-30, Department of Audio-Visual Instruction, NEA, Kansas City, Mo.

April 6-10, American Association for Health, Physical Education, and Recreation, Cincinnati, Ohio.

April 8-14, National Library Week.

April 12-14, National School Boards Association, St. Louis, Mo.

April 15-18, National Council of Teachers of Mathematics, San Francisco, Calif.

April 16-19, American Industrial Arts Association, Pittsburgh, Pa.

April 16-19, American Personnel and Guidance Association, Chicago, Ill.

April 22-27, Association for Childhood Education International, Indianapolis, Ind.

April 24-27, National Catholic Educational Association, Detroit, Mich.

April 24-28, Council for Exceptional Children, Columbus, Ohio. •

Educational Administration: The Secondary School. John E. Corbally, Jr., T. J. Jensen, and W. Frederick Staub. Boston: Allyn and Bacon, Inc., 1961. Pp. xii + 385. $6.00.

Each of the authors is an experienced secondary-school principal and the contents of this text, aimed for those preparing to be principals, communicates in a tone of practical reality. The authors present the material in four parts (the job, the tasks, the person, and the profession), but note that such a division is artificial and misleading. The interrelationships among the divisions are stressed.

The first chapter, "Incidents in Secondary School Administration," describes in a semidramatic form the everyday problems of personnel and community relations that effectively portray the formidable nature of the principal's position.

The administrative process, the influence of the situation on administrative behavior, and the necessity of working with and understanding people are factors emphasized as important to the secondary-school administrator as they are to leaders in government and business.

The writing is direct and economical. There is a list of suggested activities and a bibliography at the end of each chapter.

The Education of Teachers. G. K. Hodenfield and T. M. Stinnett. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1961. Pp. x + 177. $1.95, paperbound.

"It was like asking the Hatfields and the McCoys to get together for a Sunday dinner—or like asking the Republicans and the Democrats to hold a joint convention."

So begins this book describing the meetings of liberal-arts professors and scholars and their counterparts in education as they assembled for three conferences to resolve differences of opinions regarding the education of teachers. The conferences: Bowling Green, 1958; Kansas City, 1959; and San Diego, 1960.

The book contains a great deal of information on teacher education in this country, both as it is now and as in past years. It is related here as the conference topics and participating personalities are described against a background of the "bitterness that spread over more than half a century."

The book is not dull—it has a definite sense of humor.

G. K. Hodenfield is education writer for the Associated Press. T. M. Stinnett is executive secretary, National Commission on Teacher Education and Professional Standards, National Education Association.

The Teaching of Science in the Elementary School. June E. Lewis and Irene C. Potter. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1961. Pp. xiii + 381. $10.00.

Employing the kinds of problems that should be interesting to children, this book uses practical techniques of problem solving and methods to help children develop an understanding of science. Throughout the book, emphasis is placed on problem solving by pupils as a means for them to acquire scientific concepts and an appreciation of the scientist.

The material is arranged in a sequential organization, permitting freedom to select according to interest and ability of a learner group. Particular care and attention has been given to vocabulary and word choice —a precaution noted by the authors as being extremely important to avoid unintentional teaching of misconceptions. Many recent developments including rocketry, satellites, atomic energy, etc., are included along with major science areas from plants and animals to electricity and magnetism.

June E. Lewis is professor of science, College of Education at Plattsburgh, N.Y. Irene C. Potter is elementary science coordinator at Glen Falls, N.Y.

Psychology and Education. Hirsch Lazaar Silverman. New York: Philosophical Library, Inc., 1961. Pp. xv + 169. $3.75.

This is a volume of essays by the author, professor of psychology and chairman of the department of educational and school psychology, Graduate School of Education, Yeshiva University.

There are chapters on the psychological aspects of discipline, moral and religious factors in education, role of democracy in school areas, and existentialism as a contemporary psychology, among others as the author explores concepts of ideas and behavior "in the hope that original thinking, whether dissident or confirmatory, could be stimulated."

As the author "explores," he associates the material to the school and with the child and teacher in the school. The various chapters lend support to a plea Silverman makes in the first chapter, "I urge the schools to help close the gap between scientific advance and social retardation through sound convictional thinking and planning."

The Adolescent Society. James S. Coleman. New York: The Free Press of Glencoe, 1961. Pp. xvi + 368. $6.95.

Subtitled "The Social Life of the Teenager and its Impact on Education," this book is concerned with problems of understanding the adolescent and with utilizing the values of the adolescent society in the interests of educational goals.

The author explores and analyzes the social systems of 10 widely varied communities, from small rural towns to large urban centers. He relates the differences between the schools to their systems. The effects the various adolescent societies have on boys and girls are examined, including the special effects of early maturity, and the effects of the structure of the activities in the school.

James S. Coleman is chairman of the department of social relations, The Johns Hopkins University.

OTHER MATERIALS RECEIVED:
ELEMENTARY

Selected Resource Units: Elementary Social Studies. Edited by Wilhelmina Hill. Washington, D.C.: National Council for the Social Studies, 1961. Pp. iv + 91. $2.25.

Earth and Space Guide for Elementary Teachers. Washington, D.C.: National Aviation Education Council, 1961. Pp. 82. $1.00. A reprint of a book originally prepared by the Bureau of Curriculum Services, Pennsylvania State Department of Public Instruction.

Helping Your Child Learn the New Arithmetic. David Engler. New York: Criterion Books, 1961. Pp. 160. $3.95.

Terrariums and Aquariums. Jerome Leavitt and John Huntsberger. Chicago: Childrens Press, 1961. Pp. 47. $2.50.

From Barter to Gold; The Story of Money. Solveig Paulson Russell. New York: Rand McNally & Company, 1961. Pp. 64. $2.95.

Fire Prevention and Safety; A Teaching Manual for Elementary Schools. Hartford, Conn.: Hartford Fire Insurance Company Group, 1961. Pp. 35. Free.

Numbers for You and Me. Dan T.

Dawson, Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1961. Pp. 95. Teachers Manual available. Introductory book to teach number ideas and numerals.

Cave Man to Space Man; Picture-History of Transportation. Margaret Friskey. Chicago: Childrens Press, 1961. Pp. 64. $2.95.

Let's Talk. (Revised Edition.) Paul McKee and M. Lucile Harrison. Boston: Houghton Mifflin Company, 1961. Pp. 160. $2.32. One of the English for Meaning series.

SECONDARY

The Junior High School Today and Tomorrow. (Second Edition.) Gertrude Noar. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1961. Pp. x + 405. $5.95.

English Can Be Easy. Lawrence Philip Shehan. New York: Holt, Rinehart and Winston, Inc., 1961. Pp. vi + 362.

Modern Earth Science. William L. Ramsey and Raymond E. Burckley. **Modern Space Science.** Frederick E. Trinklein and Charles M. Huffer. New York: Holt, Rinehart and Winston, Inc., 1961. Pp. x + 630 and viii + 550. $4.96 each.

Modern Foreign Languages in High School: The Language Laboratory. Joseph C. Hutchinson. U.S. Office of Education Bulletin No. 23, 1961. Pp. vi + 85. Available from U.S. Government Printing Office, Washington, D.C. $.35.

Queen's Champion. Shaun Sutton. New York: St. Martin's Press, Inc., 1961. Pp. 245. $3.75. A story on the Age of Queen Elizabeth I.

Top Flight. Francis T. Humphreville and Frances S. Fitzgerald. Chicago: Scott, Foresman and Company, 1961. Pp. 320. One of the Reading for Pleasure series.

Your Magnificent Declaration. Bruce Allyn and Esther Blair Findlay. New York: Holt, Rinehart and Winston, Inc., 1961. Pp. 128. $1.20, paperbound; $2.20, cloth. A different treatment, in words and drawings, of the Declaration of Independence.

COLLEGE

Evaluation in Higher Education. Paul L. Dressel. Boston: Houghton Mifflin Company, 1961. Pp. xvi + 480. $6.25.

The Development of the University Evening College. James T. Carey. Chicago: Center for the Study of Liberal Education for Adults, 1961. Pp. vi + 73. $1.00.

Orientation to College Learning; A Reappraisal. Edited by Nicholas C. Brown. Washington, D.C.: American Council on Education, 1961. Pp. ix + 143. $2.00.

Substance and Spirit in Education. Kenneth Irving Brown. Nashville, Tenn.: Division of Higher Education, Board of Education, The Methodist Church, 1961. Pp. 117. $1.50.

GUIDANCE

Job-Getting Helps for Job Seekers. Bert Vincent. Trilby, Fla.: Pasco Publishers, 1961. $1.00. A Packet-Kit (No. 601) of job-getting pointers.

Opportunities for Professional Preparation in the Field of Education of Mentally Retarded Children. New York: National Association for Retarded Children, Inc., 1961. Pp. 66.

What Does a School Librarian Do? Cambridge, Mass.: New England School Development Council, 1961. Pp. 8. $.25.

GENERAL

Space for Everyone. Philip S. Egan. Chicago: Rand McNally & Company, 1961. Pp. 72. $1.50, paperbound; $2.95, cloth.

Educators Guide to Free Social Studies Materials and **Educators Guide to Free Science Materials.** Randolph, Wis.: Educators Progress Service, 1961. Pp. xii + 427 and xix + 315. $6.75 and $6.25, respectively.

Things to Do in Science and Conservation. Byron L. Ashbaugh and Muriel Beuschlein. Danville, Ill.: The Interstate Printers and Publishers, Inc., 1961. Pp. 180. $2.50.

Education of Character. Bertrand Russell. New York: Philosophical Library, 1961. Pp. 160. $3.75. An abbreviated edition of *Education and the Good Life.*

Developing Student Responsibility; A Study of Practices in Five Schools and an Urban Project. David Mallery. Boston, Mass.: National Council of Independent Schools, 1961. Pp. 51. $.60.

Paris. Irene Smith. Chicago: Rand McNally & Company, 1961. Pp. 128. $2.75. One of the Cities of the World series.

What to Tell Your Children about Sex. Child Study Association of America. New York: Arco Publishing Company, Inc., 1961. Pp. 96. $1.50.

Curriculum Materials for Trade and Industrial Education. Compiled by Merle E. Strong. U.S. Office of Education Bulletin OE-84023. Pp. 76. Available from U.S. Government Printing Office, Washington, D.C. $.30.

The History of Man. Gustav Schenk. Philadelphia: Chilton Company, 1961. Pp. 256. $2.50, paperbound; $3.50, cloth. The first in a new Basic Science series.

Survey of Teachers Salaries. Chicago: American Federation of Teachers, AFL-CIO, 1961. Pp. 99. $1.00.

Worldmaster Atlas. Chicago: Rand McNally & Company, 1961. Pp. 180. $1.95.

Teaching the Slow Learner in the Special School. Edited by M. F. Cleigh. New York: Philosophical Library, 1961. Pp. 338. $10.00.

The Life of Jonathan Baldwin Turner. Mary Turner Carriel. Urbana: University of Illinois Press, 1961. Pp. xviii + 267. $5.50.

See It and Say It in Italian and **See It and Say It in Spanish.** Margarita Madrigal and Giuseppian Salvadori. New York: New American Library of World Literature, Inc., 1961. Pp. 255 each. $.50 each, paperbound. First of a new foreign language series.

Structural Science: An Articulated Course of Study for the Kindergarten through the Twelfth Grade. Jack Trout. Carle Place, N.Y.: Carle Place Public Schools. Pp. 418. Price available by writing to the school system.

Youth Physical Fitness; Suggested Elements of a School-Centered Program. Parts One and Two. President's Council on Youth Fitness. Pp. vi + 111. Available from U.S. Government Printing Office, Washington, D.C. $.40.

AUDIO-VISUALS

U.S. Government Films for Public Educational Use, 1960. Seerley Reid. U.S. Office of Education Circular No. 655 (OE-34006) Pp. ix + 502. Available from U.S. Government Printing Office, Washington, D.C. $2.75.

Educators Guide to Free Tapes, Scripts, and Transcriptions. (Eighth Edition.) Edited by Walter A. Wittich and Gertie H. Halsted. Randolph, Wis.: Educators Progress Service, 1961. Pp. xvii + 211. $5.75.

Film Guide for Music Educators. Donald J. Shetler. Washington, D.C.: Music Educators National Conference, 1961. Pp. 119. $2.50.

Instructional Materials for Teaching Audiovisual Courses. Syracuse, N.Y.: Syracuse University Press, 1961. Pp. 74. $.60.

The Bantu Peoples of South Africa and **Helping People to See.** Two new color filmstrips available from Audio Visual Associates, Box 243, Bronxville, N.Y. Teacher's manual included.

The Congress of the United States, Berlin, and **Strategic Air Command.** Three new black and white filmstrips, 30-45 frames, available from Visual Education Consultants, Inc., Madison, Wis. $3.75 each. Supplementary teaching guide included.

Ex Litteris

(comments from our readers)

Dear Sir:

I always look forward to reading the educational and noteworthy articles in THE EDUCATION DIGEST. In the December issue, however, I wish to comment concerning the article by John McCormally on "The Root of Opposition to Federal Support."

If I ever heard a left wing trumpet sounded, John McCormally blew it when he said, "We are all brainwashed from childhood to pretend that the United States has no classes or masses, no sharp . . . disagreement between its *have* minority and *have not* majority . . . The truth of the matter is that the minority, who are the elite financially and culturally, do not trust democracy very far . . . And the majority . . . exerts most of its political energy . . . controlling, curtailing, and transforming capitalism into some forms of socialism."

Such words as these make it easier for those enemies of our great Constitution to put forth their evil doctrine. The article gave me the impression that we, the spineless people, can and should do nothing for ourselves but sit back as some luxury-loving, leech-like relative and expect "Uncle" to gather in all our needs and hand them to us.

The article is written in such a way as to cast doubt and to sneer at our patriots. I can think of no greater crime on earth than to lead men's minds into false channels by only giving one viewpoint, or deliberately pointing out a human weakness of our great American defenders of liberty and claim their only thought was for their own personal gain. True, a lot of thinking may be in error, and perhaps even Mr. McCormally can correct this erroneous thinking, but please, no callous sneers at our patriots.

I am glad this was written by a cynical newspaper man and not a teacher. As Dr. M. Rafferty, superintendent, LaCanada, Calif., wrote in the October 1961 *Readers Digest*: "Education during the past three decades has deliberately debunked the hero." Would-be intellectuals, as this author, are helping to dull the sword of patriotism by supposedly discussing the root of federal support with a curled lip aimed at democracy and our American heritage. I hope that we do not see many articles of this vein in your magazine.

H. I. Hopkinson,
Superintendent,
Byron, Wyo.

Dear Sir:

If reprints of the article, "The Root of Opposition to Federal Support," are available, please advise me of the cost of 100 copies.

Thomas D. Bailey,
Superintendent,
State Department of Education,
Tallahassee, Fla.

Dear Sir:

It was a most agreeable surprise to find my article "Technology and Education" featured in your November issue, and I want to express my appreciation for the very kind editorial handing which you accorded it. It is a real pleasure to know that this material is now available to the key audience group represented by your readers.

Henry C. Ruark, Jr.,
State Department of
Education,
Salem, Ore.

Dear Sir:

I think it would be nice if you had *one* article a month selected from the following group: drills, reviews, the recitation, uses of the blackboard, promotions, teacher-made tests, lesson plans.

Louis D. Huddleston,
Greensburg, Ind.

2 3 MAY 1962

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THE EDUCATION DIGEST

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REAU OF E ESEARCH

Volume XXVII *March 1962* Number 7

THE EDUCATION DIGEST

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MEMBER OF

EDUCATIONAL PRESS ASSOCIATION OF AMERICA

Editorial and Circulation Office: 416 Longshore Drive, Ann Arbor, Michigan.

Advertising Sales Offices:
Ann Arbor, Mich.—416 Longshore Drive, telephone NO 8-7205.
Chicago, Ill.—Didier & Broderick, Inc., 5809 Lincoln Ave., telephone LO 1-5284.
New York 17, N.Y.—Macintyre-Simpson & Woods, 101 Park Ave., telephone LE 2-0020.
Los Angeles 5, Calif.—The Jess M. Laughlin Company, 711 S. Vermont Ave., telephone DU 3-7697.

Published monthly, September through May, by Prakken Publications, Inc., 416 Longshore Drive, Ann Arbor, Michigan. The annual index is included in the May issue. The contents of THE EDUCATION DIGEST are listed in the **Education Index**.

Subscription Rates: $5.00 a year; 2 years, $9.00; 3 years, $12.00; foreign, $5.50 a year. Single copies, 60c.

Second-class mail privileges authorized at Ann Arbor, Michigan, and additional entry authorized at Oxford, Ind. Printed in the United States of America.

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PRAKKEN PUBLICATIONS

THE EDUCATION DIGEST

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Volume XXVII MARCH 1962 Number 7

Tribute on a Ninetieth Birthday

Kilpatrick and the "Progressive Idea"

HAROLD TAYLOR

In The New York Times Magazine

Harold Taylor was President of Sarah Lawrence College, Bronxville, New York, from 1945 to 1959. Reported from The New York Times Magazine *(November 26, 1961), 30, 122–23.*

THE recent celebration of William Heard Kilpatrick's ninetieth birthday did honor to a true progressive who, through 70 years of constant teaching, released a flood of new ideas for the reform of education.

A prolific writer and a dedicated teacher, Kilpatrick during his career was dismissed for heresy, attacked for radicalism, praised for integrity, acclaimed and condemned for progressive ideas, admired for his teaching, and, by critics and supporters alike, identified as a major force for educational change in America in this century.

During the twenties and thirties, students flocked to Kilpatrick's classes at Columbia University. They came to hear a rebel who had a method by which tradition could be overthrown. Out would go the system of formal subjects, textbooks, recitation, examinations, and grades. In would come an education which gave the child a chance to discover things for himself, to gather facts, to draw conclusions, to build his own knowledge through experience with life. The philosophy was John Dewey's, the application was William Kilpatrick's.

He has been applying that philosophy ever since, until now, at 90, living near Columbia, he is writing an autobiography and a new book on education, and working out plans for a new international college.

So great was his influence during the twenties and thirties that Kilpatrick has been accused of having indoctrinated a whole generation of teachers and administrators in Dewey's ideas, and of having formed, with his colleagues at Columbia's Teachers College, a tightly knit movement of progressive educators who controlled the American educational system.

It is true that a lively and important group of educators worked together at Columbia during Kilpatrick's time. The students came to Columbia because they were drawn there—these were men and this was an institution devoted to stirring up questions about established tradition and finding new solutions to persistent problems.

What critics of progressives fail to note is that the power of an idea to convince depends finally on the strength and vitality of the idea itself and the way it meets the demands of its context. If progressive ideas cease to generate new reforms to meet demands of a new context, they lose their power to convince, lose it exactly where they found it—in the open forum of American experience where all ideas must meet their test.

It is ironic that, at a time of constant attack on "progressive education" as the instrument of American intellectual decline, the most promising reforms in the educational system are those which stem from the tradition of Dewey, Kilpatrick, and his colleagues. Among such reforms are:

The experimental work by Jerome Bruner at Harvard on how children learn and how the mathematics curriculum in elementary school can be revised to remove obstacles to the child's understanding of mathematical concepts;

The Higher Horizons program in New York City, designed to raise the level of education in the slum areas by improved guidance and individual teaching, using the whole city as an essential part of a new curriculum;

The Bennington and Antioch College nonresident terms;

The Peace Corps educational concept by which students are prepared in foreign languages and cultural studies which can be of direct use in practical projects abroad;

The exploratory freshmen courses at Sarah Lawrence and the freshmen seminars at Harvard with no subject matter set in advance;

The experimental work at the University of Illinois in the revision of the mathematics curriculum for high schools; the use of tapes, records, and laboratories for teaching foreign languages; the junior-year abroad; experiment in team teaching—these are all aspects of progressive approaches to the solution to educational problems.

DISTINCTIVE CHARACTER

The distinctive character of progressive education is that the subject matter for learning is considered to be the whole world in which the child exists, and the effort of the teacher is to find ways in which the child can learn for himself the things he needs to know. The aim of education, for the progressive, is the development of personal character, of which intellectual power is a central component.

The child is to be educated by

encouraging his intellectual and personal assets, rather than by punishing his weaknesses. Acquiring subject matter is not enough. The child must learn to use his intelligence in gaining knowledge of all kinds, and it is the teacher's duty to help him with a curriculum that gives him something to do and to match the level of his talent with tasks with which he is capable.

Kilpatrick and the progressives have abhorred the notion that all children, regardless of background and capacity, should be lumped together in classes, where the talented would be frustrated by the slow pace of others, who, in turn, would also be frustrated by inability to learn if the teaching were too far ahead of their stage of development.

The progressives have called on everyone to take full account of differences in ability, temperament, and background of all children. They have argued against classifying children by IQ tests, grades, and formal academic ratings which could easily mask the native talent and could often destroy normal development of a child by convincing him that he was stupid.

They have argued that educators could not expect children who lived in the slums to be able to do the subjects and meet the academic standards of children of well-to-do families. They have called for help to the underprivileged and to the socially deprived.

Further, Kilpatrick and other progressives made radical proposals for curriculum reform. Science, the progressives said, is learned by doing what scientists do, that is, gathering facts, testing hypotheses, forming conclusions. The arts and the social sciences are learned by doing what artists and scholars do—writing poems, stories, reports, composing music, painting, acting, and creating new forms and new knowledge along with it.

But, above all, the child learns truly what he sets out to learn and what he engages himself in learning. If he learns only in order to avoid punishment, to secure a grade, to pass an examination, he has not broken through to the real purpose of education.

It is commonly agreed that progressive education and Kilpatrick have had a lasting effect on American education. There is less agreement on the value of the changes which have been produced.

CRITICISM

In recent years, a stream of criticism has been directed against the effect of progressive reforms and practices. Reduced to their essentials, the criticisms state that too little emphasis is given to the fundamentals of subject matter and to intellectual discipline, too much is given to the interests of students and their emotional well-being.

The progressive idea of learning by doing, of involving students in school government, of creating informal relationships between teachers and students, of allowing students freedom to form their own conclusions about political and social issues, has, in the judgment of the critics, produced soft, lazy, and ignorant high-school graduates unable to read, write, and think.

Another kind of criticism comes from those who attack progressive ideas on political grounds, holding that the schools fail to teach patriotism, Americanism, belief in God, and respect for authority. Students, it is said, are corrupted by being allowed to read books like George Orwell's *1984* and Salinger's *Catcher in the Rye*, and are encouraged to criticize their government rather than to respect and obey it.

ANSWERS TO CRITICISM

The point of view of Kilpatrick and the progressives is simply that students learn democracy by living it, and free expression is their right. Their freedom to read, and the freedom of teachers to teach, must be protected from those who wish to establish political control of the schools.

The answer to other criticisms of Professor Kilpatrick's brand of progressive education is more complicated, both because Kilpatrick's ideas are enmeshed in an entire complex of ideas which go to make up the progressive movement and because many of those who have applied the ideas in practice have not understood the conditions necessary for their success.

If one enters an elementary-school science classroom and finds a well-trained biologist teaching a project in embryology by hatching eggs with apparatus the children have helped to construct, one is in the presence of a teacher who understands what Kilpatrick and progressive education really mean. If in another classroom one finds children making papier-maché alligators as a way of combining the creative arts with science under the supervision of a teacher who is neither an artist nor a scientist, the conclusions may be different.

Bad education and bad teaching by foolish methods should not be confused with progressive education. It is the quality of the teacher more than anything else which determines the quality of education, and the progressive system requires depth and range in its teachers far beyond the conventional demands.

During the formative period for his ideas, from 1895 to 1917 when he first proposed the project method, Kilpatrick gained his experience in Georgia as a school and college teacher of mathematics and astronomy, as a school principal, and as an administrator of a college in an educational system marked by extreme rigidity and tightness of academic organization. His radicalism was a response to existing conditions.

Kilpatrick wanted and sought to put the child into the center of education, to give the child a world of his own, to lead the teacher into a new classroom. All his life he has been working to create these better forms. •

Don't Overlook New Educational Concepts

New Dimensions in Plant Planning

Basil Castaldi

In Overview

THE main reason so few educationally imaginative schools have been produced in recent years is because planners focus attention on educational program and methodology as a series of separate parts, rather than on broad educational concepts that can be shaped into a functional program. We have come a long way from the negative planning approaches of a quarter-century ago, but we have yet to face the realities of what plant planning today signifies.

Twenty-five years ago we made serious mistakes of omission in planning new schools, and we still suffer for them. It was common practice then for a school board to commission an architect to design a new school, tell him which grades and how many students would use the building, and then leave him to work out all planning details. The board would conscientiously review plans and approve them, but only to make sure the district was getting its money's worth in actual structure.

The procedure produced architecturally sound but educationally mediocre school buildings. The educationally stagnant schools caused concern among superintendents, board members, and professional planners. They moved to become more active in new-plant planning.

After World War II, educational executives, teachers, pupils, and custodians began to voice their needs and wishes when new schools were contemplated. Armed with such information, architects were able to create efficient and exciting schools. But true educational creativity was still lacking. Too much attention was focused on details, not enough was given to broad aspects of the educative process.

Then the team approach to school-plant planning came into play, joining the talents and technical skills of various people for the common purpose of producing good schools. This procedure has proved itself over the past 10 years, even though many school districts have never attempted it.

Yet teamwork alone doesn't do the job. A complement of administrators, faculty members, board members, professional educational consultants, representative citizens,

Basil Castaldi is Associate Professor of Education, University of Illinois, Urbana. Reported from Overview, *III (January 1962), 44–46.*

and the architect will not produce an effective planning team unless the fundamentals of both functional and conceptual planning are employed.

By basing educational planning for a new school on broad educational concepts, the school is placed in proper perspective. Then all the pieces of space, program, and facilities fall into an educational pattern which the architect can translate into structure and which staff and students can implement with understanding.

By basing planning on broad educational concepts, planning at a high level of intellectual creativity is encouraged, posing exciting challenges for boards of education, administrators, consultants, and architects. A practical aspect is that public funds will be spent wisely and the community will have a school that advertises its forward-thinking approach to education.

Some representative concepts follow. All or some could be considered in planning a particular school.

ADAPTABLE TO CHANGE

Let's begin with the idea that a proposed new school should be adaptable to gradual change. The program, scheduling, and methodology should be able to change as fast or as slowly as the superintendent and faculty feel to be necessary. The building actually can move, flexing and bending to suit program needs. The flexibility would permit a gradual changeover from current educational practices to those envisioned for the future and provides a high educational return per dollar spent.

The next consideration is the concept of individual differences. A school planned along these lines will accomodate any student, whether gifted, slow learning, or "average." Remedial rooms, advanced laboratories and workrooms, special spaces, and individual study areas are included.

Selfinstruction is another valuable concept. Man has always been able to teach himself new skills, but American education has never fully capitalized on this concept beyond providing a library with free books. Now, the new technology encourages school planners and designers to create spaces that will exploit selfinstruction. New schools are providing extensive student resource centers and individual study carrels.

FOR GROUPING

Grouping for very large and very small numbers of students also merits the attention of planners. A "very large group" means all students enrolled in a particular section. They might meet together for 40, 50, or even 60 percent of their instruction. Very small groups would be 15 or 20 students, working with a teacher for more individualized instruction. Depending on the subject, pupils could work in small groups in direct contact with the teacher for 40 to 60 percent of the time devoted to that subject.

Another concept to consider is staff utilization and effectiveness. Both large and small groups call for a superior quality of teaching, with more than half of the staff participating. Other teachers would operate under conventional grouping, with classes meeting on the regular basis almost universally employed today.

All teachers in a school may act as a unified force for cooperative teaching. They may be members of a teaching team, resource consultants for teaching teams, or participants in large-group instruction. Each teacher is then a potential member of many teams. Subject-matter barriers dissolve as their instructors cooperate on joint presentations. Cooperative teaching necessarily imposes a few extraordinary requirements in school design—professional library, conference rooms, and private offices for teachers—but there is no limit to the specially devised spaces which may be planned.

Multistructured scheduling cannot be omitted as a broad planning concept. It has been used in various forms since departmentalized programing came into use. The primary purpose of multistructured scheduling—where a student departs from the regular routine of five periods per week in each subject—is to vary the amount of instructional time for certain subjects under study.

By combining multistructured scheduling with varied grouping, we can increase our staff and space utilization without reducing instructional time for any of the subjects. While this concept has almost universal application, its implementation is extremely sensitive to the demands of a particular educational program. Each school will, therefore, have to draw up its own combination of schedule structures. Team teaching may or may not be involved, but can be worked in as needed.

Any educational concept is subject to constant analysis and to change. Yet all help to point the way into the future and are invaluable guideposts to effective educational programing for new plants. When a school is planned according to concepts that are accepted or discernable as trends, it will accommodate today's practices and be adaptable to tomorrow's requirements.

In looking to the future, conceptual planning differs markedly from traditional plant planning procedures which embody current or past school design features. It brings school design into new focus by applying intellectual creativity to broad educational considerations. And the satisfying outcome results from the teamwork, functional planning, and combined imagination of all planning participants—school administrators, board members, teachers, students, citizen groups, consultants, architects, and even an occasional manufacturer's representative. How can we help, then, but move ahead to exciting educational plants? ●

A School Where Teachers Have Individual Offices

LEO E. BUEHRING

In The Nation's Schools

Leo E. Buehring is Feature Editor of The Nation's Schools. *Reported from* The Nation's Schools, *LXVIII (November 1961), 54–61.*

ARE movable walls practical for school use? Should teachers have individual offices? Can high-school students supervise their own work in the school library? How will carpeting on classroom floors affect the educational process? The answers to these and dozens of other questions are being sought at the new University of Chicago High School, which was opened for occupation a year ago.

The new building is a compact, four-floor structure. It is part of a quadrangle built within the courtyard created by three existing buildings. The floor area of 96,000 square feet was planned to accommodate 800 students. It contains an experimental suite designed and constructed to explore new ideas in education.

Individual initiative did not always seem to flourish within the traditional classroom size. The planners wanted a scheme that permitted new instruction programs to be tried out in varying size classrooms and within the concept of a laboratory-school setting. Also, they wanted the space to be adaptable to future programs that cannot now be envisioned.

The experimental suite, which was designed to offer teachers broadened opportunities for working together, can be described as a frame enclosing a space equivalent to six traditional classrooms. Movable walls and folding doors permit the space to be divided into a large variety of teaching spaces, from classrooms to auditorium-size lecture rooms. Within this ultimate in space flexibility, both staff members and graduate students have opportunity to test new programs and new instructional equipment.

New types of movable walls and folding doors are being tested in the experimental suite. This project was undertaken because of the value found in the use of dividers in earlier team-teaching situations. Products of four different manufacturers are now being tested in cooperation with the Educational Facilities Laboratories, Inc.

Floors in the experimental suite are carpeted throughout. The maintenance men say that carpeting is as easy to maintain as hard surfaces. Acoustical characteristics, especially important when sound tape, TV originations, and motion picture activities are in process, are improved by the carpeting. A side effect is the "quieting down" of the students when they enter the carpeted room.

One of the basic design objectives of the new school was for the library to serve as a study center. The school has no study halls; each student is scheduled for one library period each school day.

The layout of the library emphasizes study rather than supervision. Much of the routine work is done by the students and they check out their own books under an honor system. There are 25,000 volumes on movable stacks, microfilm readers are available, and there are turntables and earphones for listening to recorded material.

SPACE FOR TEACHERS

Each subject-matter department in the school has a conference-work space for teachers, and individual teachers have semiprivate offices in the area. The reasoning is that teachers need privacy where they can prepare for classes and where they can counsel students or interview parents. The area also gives teachers an opportunity to discuss common problems with other staff members.

All classrooms have modern audio-visual facilities, including blinds for windows and doors, a projection screen for each room, and storage space for the projector in each room.

Convinced that audio-visual techniques and materials would play an increasingly important part in instructional programs, the planners provided wiring to originate and receive closed-circuit TV programs at each of the 23 teaching stations. Looking to the future possibility that more complex equipment may be employed, there are ducts in the floors to provide for various wiring installations.

There is a central projection room in a nearby building. A teacher may place an order, with some advance notice, and at the appointed time the film may be viewed on the TV set in the classroom. This arrangement obviates the need for moving equipment, eliminates the problems and time-waste of mechanical duties, and reduces the pieces of equipment used.

The sound laboratory was planned to be expandable. The school's administrators prefer the term "sound laboratory" to "language laboratory" because the equipment is designed to be used for social studies, music, and other forms of listening, as well as for language instruction. At present, 30 listening stations are in use with basic wiring for additional stations installed in an adjoining room.

The school's 400-seat cafeteria was planned for multiple use. In addition to a twin serving line for students, there is a faculty line with portable hot and cold carts that form part of the regular line but that can be moved into the dining area when large groups are served.

It is possible to shut off the serving and dishwashing area from the dining space after the serving period by folding portable walls. When cleared of tables, chairs for 800 persons can be set up auditorium style. It makes a desirable place for group testing.

After school hours, the cafeteria area provides a meeting place for students. With the use of room dividers, the snack bar can be set up for a canteen type of program. Two record players built into the P.A. system can provide music.

SCIENCE FACILITIES

The science facilities were designed for an integrated program, that begins with the kindergarten. There is a physics laboratory (with a weather station on the roof), a chemistry laboratory (with a perimeter arrangement of tables), and a biology laboratory (with greenhouse and small animal room).

Each science laboratory has its own preparation area where a teacher can work with a limited number of youngsters while supervising the general class. Laboratory equipment is portable, permitting flexible adjustment according to instruction. As in other classrooms, a projector and screen are provided for each laboratory.

An outdoor amphitheater is an extension of the cafeteria floor. Located in the courtyard, south of the building, it serves as a social and dining space in fair weather and as an outdoor teaching space for about 200 students. The overhang of the building provides shelter for an elevated stage area, permitting equipment, such as a piano, to be taken outdoors without danger of damage from weather.

Dressing rooms for the amphitheater can be set up behind the outdoor stage, in the cafeteria, with the aid of movable partitions. Amplifiers, microphones, and other equipment prove helpful when putting on a program.

Among several new projects scheduled for the new school this year is a team-teaching program at the freshman level with a problem-solving approach. Individual study areas are being set aside where a student will be able to pursue independent study of defined problems in world geography and earth science. The study areas will be used throughout the day at the student's discretion; and there will be opportunities for small-group discussions, lectures, and library and laboratory work.

Another use of the experimental method will be unified observation of classroom teaching. Groups of graduate students will watch classes in action by closed-circuit television, then react to the live teaching demonstrations they witness.

This experimental program of the University High School, which is part of the graduate school of education of the University of Chicago, demonstrates the philosophy of the school and its faculty. "The school is operated as a laboratory in which to learn about learning," states Dean Francis S. Chase. •

Should We Go Along with the Crowd?

Ethics, Examinations, and Education

WILLIAM W. BRICKMAN

In School and Society

ANYONE with even a remote connection with a school or college is familiar with the practice of cheating on examinations. But every 12 months or so there is an expression of horror at new reports of students applying techniques to obtain high grades in the absence of corresponding knowledge. The less scrupulous adults wink and recall what they got away with in their youth. The moralistic demand various reforms, from punishment through better ethical teachings to the abolition of examinations.

Revelations of the low state of ethical behavior in some circles in government, business, industry, culture, and the church once more have focused attention on the school as the source of wisdom and inspiration which would raise the national index of honesty. But present conditions in the educational world are not likely to convince people that the school and college can work the miracle.

Tests have become increasingly important in the life of every pupil, student, and civil servant. Rare is the person who will pass into a higher school, win a degree, obtain a professional license, or receive an appointment to a desirable position without some form of examination. The stakes are high; temptation usually is present. The personal conflict is not always resolved in favor of honor and uprighteousness.

We can look to history for a bit of solace. The civil-service examination, established in China a millenium or more ago, was conducted in sealed individual cells from which candidates did not budge for three days. The candidates were searched carefully for any concealed examination aids before entering the rooms. Still, despite a death penalty for examiners and examinees caught cheating, there is real evidence of the circumvention of the rigid rules. The Gest Oriental Library at Princeton University possesses a "cribbing garment" which was rented to those intending to cheat.

Those who had a hand in intro-

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ducing uniform tests in America must have had lofty motives in mind. A report of the New York State Board of Regents in 1864 explained the value of the Regents examinations as follows: "It is the system of state competitive examinations which give to public education in Europe much of that thoroughness and exactness which is wanting in this country, and without which schools fail everywhere to produce their highest results."

In less than a century, the ability of the Regents to maintain high scholastic standards crumbled under the combined onslaught of educators, pupils, and parents. The loss of prestige suffered had a carry-over effect into other forms of examinations. Tests must be easy and pleasant; if not, then something was wrong with them. Since they could not be abolished, then any subterfuge, collusion, or form of dishonesty would be permissible to advance one's own interests. Notwithstanding various precautions, administration of tests in an honest manner became increasingly difficult. It was rare to find student bodies who were shocked at revelations of cheating on tests. Even faculties and administrators, in many cases, began to adopt a fatalistic attitude that an honest testing program was an impossibility.

OTHER ETHICAL PROBLEMS

The problem of ethics in education raises its head in areas other than examinations. There are many illustrations of questionable ethical practices or downright bad ethics. A few of the more glaring instances will be pointed out.

Students often are required to write documented themes, term reports, or research projects. Some may hand in papers prepared by predecessors, then suffer in silence when their grade is lower than the grade earned by the same report a year earlier. The fraternity files of term papers constitute evidence of some use at least of another person's work.

Even if students do their own research and their own writing, there still exists an opportunity for cheating. Incorporating passages from books without acknowledgement cannot be considered good ethics. It is possible for quotation marks to be dropped in honest error during typing but such carelessness can be avoided with a little precaution.

The services of a fluent writer, experienced in the form of research, may be obtained by more affluent students. The ghost writer may produce a passable piece of prose or even deliver a master's thesis. Such forms of sabotage are not necessarily inevitable and ineradicable. The requirement of a preliminary outline which is corrected by the professor, the inclusion of a question concerning the report on final examinations, and oral discussions with the student while work is in progress are some practices effective in reducing this type of cheating.

Let us move into the higher reaches. Administration of the Ph.D. and other doctoral programs has not been free from dubious ethics. The practice of a professor accepting the role of guide to a student writing a Ph.D. thesis may be seriously questioned at times because the faculty member is not a specialist in the area of the dissertation. Even worse, a professor may undertake guidance in a field alien to him and he may fail to make the effort to get acquainted in the field while he is in charge of the dissertation. Such a practice is not merely unprofessional; it is probably unethical, inasmuch as one seems to offer expert advice which is not actually derived from expert knowledge.

In some institutions, the final oral test for the Ph.D. candidate may be conducted without the presence of the best qualified professors as examiners. This can be due to illness, absence, or conflicting academic duty, but there have been occasions when no one invited such a professor to examine the candidate. Could it be that the student's sponsors on the faculty fear to expose him to real questions, thus risking the chance of failure? This problem is seldom faced by university faculties.

What can we call the conscious and deliberate lowering of standards for particular students to give them good grades or to help them obtain degrees? Is this simply flexible administration, good human relations, or an application of the doctrine of individual differences? Or might it be a matter of unethics?

We will mention briefly the painfully familiar practice of conferring honorary degrees on persons whose academic backgrounds and interests are limited to the day the hood is draped over their shoulders. Why should a university debase the values which are supposedly basic to its functioning and give an honorary degree—which might become economically and socially unrecognizable from an earned degree—to one who has not distinguished himself in an academic manner? Let other forms of honor be given to those who deserve them. But the universities are employing questionable ethics when they give a degree to a person not identified with higher scholastic values.

SUBTLE EXAMPLES

Few are acquainted with the more subtle instances of un-ethics which sometimes creep into higher pedagogy. Some professors and administrators have followed the example of students (or was it vice versa?) in making unauthorized use of various writers' researches and other works. On the administrative level, there are times when ethical behavior gets a bad beating. Favoritism in assignments, promotions, and salary increases is one form of unethical action; deliberate nonrecognition of academic merit is another; a third is a lukewarm or negative recommendation when a strong one is objectively called for.

Popular books, sociological and similar studies, and daily observation all point to the fact that today ethics often is taken very lightly in industry, commerce, labor, government—and education. Should education go along with the crowd or should it repudiate the common creed?

EDUCATION'S OBLIGATION

Education, to live up to its name and function, must crack down on fraud in whatever guise and at whatever level. Educators must, by reason of their title, serve as examples to the younger generation. Their values must not be those of the televised travesty of knowledge. It is imperative that they concentrate on raising the level of the entire educational process to the point where ethics is the norm and not the verbal hobby of a small core of diehards.

The tightening-up process may take three forms: principle, prevention, and punishment. First, a deep understanding and appreciation of ethical values must be communicated to all who are undergoing or transmitting education. The idea of doing the right and honorable thing, in terms of tested traditions of the human race and the requirements of human relations, should be inculcated and insisted on in education. The best minds in education and society should bring forth good and effective procedures for the teaching of ethics.

At the same time, educators should assume that the system of ethical instruction might not work to perfection. Consequently, they must be prepared with techniques for prevention of dishonesty in school or college, techniques such as scrupulous secrecy in examinations, reasonable questions in a variety of types, opportunities for retesting, and a greater emphasis on oral tests, interviews, and the student's past record.

Third, a consistent policy of justifiable punishment should be adopted by responsible educators where ethical teachings and preventive measures have fallen down. Although history has revealed that even extreme punitive measures have not prevented cheating, if there is an awareness that the academics are taking ethics seriously, it is probable that most persons would be deterred from dishonesty. They would learn that penalties severe enough to cut short a career would be enforced.

It may be easy to judge others in an holier-than-thou fashion. Nevertheless, there comes a time when we in education must bear down on all kinds of lapses from ethics—the practice of right conduct, of good behavior, of proper attitudes to the principles which have governed our way of life either as men or as professional workers. Let us by all means run efficient and effective educational institutions. But let us at the same time make certain that our actions will be directed in every way by what is ethical and moral. •

Is It a Feasible Method?

Learning by Discovery: Rationale and "Mystique"

DAVID P. AUSUBEL

In Bulletin of the National Association of Secondary-School Principals

AT the appropriate time and place, and for carefully designated purposes, learning by discovery has its defensible uses and undoubted advantages. This I refer to as its rationale. But for a long time, and in many different guises, learning by discovery has also been a fad and a religion. Some proponents have elevated it into a panacea—for reasons that border either on mystical veneration of its alleged effects on the learning process, or on sheer sentimental fantasy about the nature of the child and of the educative process. This is what I refer to as "mystique." The following will attempt to distinguish between the rationale and the mystique of the so-called discovery method of teaching.

The discovery method can be used most effectively when the learner is in the concrete stage of logical operations and is dependent on concrete-empirical props and on a preliminary phase of intuitive, subverbal insight for the learning of complex abstractions. It can also be advantageously employed in the early stages of teaching older individuals a difficult new discipline in which they are unsophisticated. The latter stage, however, is as temporary as the subject-matter unsophistication itself, and cannot be considered a developmental type of limiting condition as in the case of younger learners.

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Because of serious time-cost disadvantage, that outweighs by far any modest "vividness," motivational, and problem-solving advantages, learning by discovery cannot possibly be a feasible method of teaching subject-matter content—excepting the two circumstances just mentioned.

The discovery method also has uses and advantages in teaching problem-solving techniques and methods of scientific inquiry within a given discipline, and in testing for meaningful comprehension of material learned through didactic exposition. Although the promotion of problem-solving ability is a legitimate educational objective, it can hardly be considered a primary goal of education. Also, since problem-solving methods are not feasible for transmitting large bodies of subject-matter content, we cannot depend on students somehow acquiring all the subject matter they need to know during the course of involvement in a discovery program. Even from the standpoint of enhancing problem-solving ability and even among a population of gifted pupils, excessive emphasis on discovery methods would ultimately defeat its own ends because students would not acquire enough of the knowledge they need to solve problems adequately.

Programs dedicated to teaching the "heuristics of discovery" fail to appreciate that critical thinking ability can only be enhanced within the context of a specific discipline. Furthermore, since the major goals of the science student, unlike those of the scientist, are not to formulate and verify new principles but to learn the rudiments of a scientific discipline as well as something of the spirit and methods of scientific inquiry, he cannot accomplish these objectives by playing the role of junior scientist.

IS REDISCOVERY NECESSARY?

The proposition that, *really* to possess an idea or to call it one's own, one must discover it oneself, is not only lacking in face credibility, but also repudiates the basic educational assumption on which the transmission of human culture rests; namely, that the accumulated discoveries of mankind can be effectively learned through verbal exposition and need not be discovered anew by each individual in every generation. Most of the knowledge anyone *really* posseses is discovered and transmitted to him by others; all we can reasonably expect most individuals to do, as far as making knowledge their own is concerned, is to integrate this knowledge meaningfully within their own cognitive structures.

The organizing and integrative effects of learning by discovery are not attributable to the act of discovery *per se*, but to the careful sequential organization and selective schematization which are deliberately introduced into the so-called "discovery" curriculums by their sponsors. The use of "pure" discovery techniques, as employed by scholars and scientists, could only lead to chaos in the classroom. Contrary, also, to the assertion of discovery enthusiasts, there is nothing *inherently* authoritarian in presenting ideas or knowledge to others, as long as they are not obligated to accept it on faith.

Discovery methods are not unique in their ability to generate selfconfidence, intellectual excitement, and sustained motivation for learning. Good expository teaching can accomplish these same objectives. It is also unrealistic to attribute to contrived discovery experiences in the classroom the same kind of inspirational stimulation that is generated by "real" discovery in the research laboratory. Neither are discovery methods unique in inducing intrinsic as against extrinsic motivation for learning. In truth, it is precisely the individual in our type of culture who lacks intrinsic selfesteem and has strong compensatory needs for prestige, status, and ego aggrandizement, who is most likely to strive for the glory associated with original discovery.

Examination of research literature allegedly supportive of learning by discovery reveals that valid evidence of this nature is virtually nonexistent. It appears that enthusiasts of the discovery method have been supporting each other with "research" by citing each other's opinions and assertions as evidence and by generalizing wildly from equivocal and even negative findings.

The different curriculum reform projects using discovery techniques have not attempted the well-nigh impossible task of isolating effects of the discovery variable and, in most instances, have not attempted to collect adequate control data with which to evaluate the efficacy of a given project as a whole. Studies comparing "drill" and "generalization" methods of teaching the number facts have provided evidence about rote versus meaningful learning rather than evidence about the effectiveness of the discovery method.

Findings from short-term research are similarly disappointing. Lastly, research on meaningful verbal and symbolic problem solving indicates, on the whole, that providing guidance to the learner, in the form of verbal explanation of the underlying principles, almost invariably facilitates learning and retention, and sometimes transfer. *Self*discovery methods, in contrast, are relatively much less effective.

Discovery methods are often rationalized in terms of the currently fashionable slogan that the school's chief responsibility is to make every child a critical and creative thinker. This incredible notion is based on the assertion that all discovery activity, irrespective of degree of originality, is qualitatively of one piece; on a watered-down, more "democratic" definition of creativity, broad enough to include any type of independent discovery; and on naive conceptions of human plasticity which hold that, even if a given child has no creative potentialities, inspired teaching will create them. Actually, creativity is a rare gift. The school can only help in actualizing its expression in those rare individuals who already possess the necessary potentialities.

There is a pressing need in these times to dispense with sentimental fantasy and euphoric slogans and get on with the realistic business of education. This means helping schools to do well the kinds of jobs that schools can *really* do; namely, developing more efficient and appropriate ways of selecting, organizing, and presenting significant knowledge to students so that they can learn and retain it meaningfully —both as an end in itself and as a basis for future learning and problem solving. •

Theory and Practice in Administration

HAROLD J. McNALLY

In The National Elementary Principal

MOST Americans have a forthright lack of respect for "theory." Such an attitude is not surprising; it is the result of the triumphant trial-and-success story, which is the history of our exuberant nation. But such childish disparagement of theory will not serve us well in the complex scientific world of today and tomorrow.

Perhaps the chief reason given for the widespread suspicion of theory is that it is not practical, a belief that reveals ignorance of what theory is. Good theory is the most practical of things. Through dreary centuries, men treated disease with charms, nostrums, and old wives' remedies until the work of Leeuwenhoek, Pasteur, and Koch resulted in formulation of the bacterial theory of disease. Could one possibly claim such a theory to be impractical? The current astronautical space explorations are dramatic illustrations of the practicality of Copernicus' theory of the solar system.

What, then, is this thing called theory? Because reasons for the mistrust lie partly in erroneous concepts, it may be helpful to say first what theory is not. Theory is not a guess or personal point of view. Theory is not a statement of the ideal. Theory is not a classification system or a taxonomy.

Simply stated, theory is a way of looking at the behavior of things or people. It is a frame of reference, an explanation of the relationships of facts or phenomenons which may not seem to be related. It is a statement of "general principles which seem to predict or account for events with an accuracy so much better than chance that we may say that the principles are 'true'." Thus, the bacterial theory of disease explained the relationship between disease and lack of sanitation, between rats and epidemics of plague, between cows, raw milk, and tuberculosis. The Copernician theory explained the relationship of the planets to one another and to the sun.

Theory has many practical ap-

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plications; it helps to explain, to predict, and it gives form and direction to research. Theory helps us identify important unanswered questions and suggests where we should look for the answers. Theory also is invaluable in planning and conducting programs designed to prepare school administrators for their jobs. It can guide decisions concerning the form, the sequence, and the choice of content and method of the instructional program and serve to test its validity. And the application of sound administrative theory should enable the administrator both to explain and predict the consequences of administrative action. It is, therefore, a guide to such action.

There has recently been an expansion of interest in developing a theory of administration. Presently, we have a variety of theories, with no single one pretending to explain the entire task. Of the many theories being discussed, a few which are illustrative and at the moment seem helpful will be described.

HUMAN RELATIONS

Human-relations theory. – The human-relations theory is being supported by those who believe that authority is not inherent in the leader, that it does not flow from him to the group. Rather, authority is invested in the leader by the group as they perceive in him the qualities they desire in a leader. Leadership is the result of the goal-seeking nature of human beings, who are constantly striving to achieve goals, satisfy needs, and relieve tensions. The foregoing usually involve relationships among human beings; and a leader is the person a human group perceives as having the qualities and the power to best help them achieve their goals.

Some of those supporting the human-relations theory contend that leadership consists primarily of two functions: one, having to do with services the group requires to grow to greater maturity; the second set having to do with services required by any group in keeping its processes of planning, acting, and evaluating production and geared to the changing environment in which it lives and acts.

The first set of functions, termed "group building and maintenance roles," identify roles of harmonizing conflict, compromising, expediting communication flow, and standard-setting. The second set, "group task roles," include initiator-contributor, information-seeker, information-giver, elaborator, coordinator, and evaluator-critic. The task of the leader is to assist the group in exercise of constructive group roles to assist the group in goal achievement.

ORGANIZATIONAL THEORY

Organizational theory.—Granting that leadership is centered in the dynamics of human relations, two investigators approached the problem from the standpoint of the behavior of individuals in formal organizations. Chris Argyris and E.

Wight Bakke maintain that there is a basic conflict between the individual human personality with its objectives and the formal organization. Therefore, within the formal organization an informal organization develops which helps "decrease the basic causes of conflict, frustration, and failure."

This informal organization might consist of coffee groups, commuting groups, friendship groups, or a clique centering around a highly regarded teacher of forceful personality.

Argyris and Bakke stress that the formal and informal organizations must be considered as a total social system, within which administrative reactions can increase or decrease the underlying antagonism between the individual and the organization. Their theory is an attempt to assist the administrator in diagnosing organizational problems and in guiding his plans and decisions accordingly.

DECISION MAKING

Administration as decision making.—There often has not been a clear distinction between theories of administration and theories of leadership. Although the terms are often used interchangeably, they are not synonymous. Many leaders have no administrative functions, and hence it is maintained that these two concepts should be kept separate in theory building.

One authority prominent among students of theoretical aspects of administration, Daniel E. Griffiths, proposes a theory of administration based on the concept that the distinguishing characteristic of administration is that of directing and controlling the decision-making process. Not *making* decisions but directing and controlling the process. Furthermore, "the decision-making process is construed to mean not only the decision but also the acts necessary to put the decision into operation."

Griffiths suggests a set of concepts as working tools in building the theory. They are: decision-making, organization, perception, communication, power, and authority.

Griffiths' theory appears to be one of the most useful yet formulated, provided we remember that it is a theory of administration, not of leadership.

It is evident, then, that there is a variety of theories of administration, of which the foregoing are but a few examples. It may also have been evident that the theories described here, although different in each case, have some elements in common. All of them rely to some degree on theory from related behavioral science fields, and in some cases even employ concepts of the physical sciences.

At this point, an administrator might well be saying, "What's all this have to do with *my* job?" If our position that theory is practical is sound, then it has a great deal to do with your job.

For example, consider the principal's important responsibility of maintaining high-level staff effectiveness. The human-relations theory can help him understand and diagnose the needs of the staff and appreciate the importance of reconciling these and the needs of the organization as much as possible. Furthermore, he will be helped in diagnosing the behavior of staff groups as he works with them in the improvement effort, understanding better the roles played by group members and his own functioning as a member of the group.

Organizational theory can assist the principal in being sensitive to the reasons for and needs of both the informal and formal organizations in which he works. He will recognize the informal organization, respect it, and take it into account as he works with individuals, subgroups, and the school's staff as a whole.

Decision theory can help the principal understand the realities and dynamics of the decision-making process about the staff, decisions about which areas to emphasize to improve staff functioning. It can help him understand the nature, problems, and techniques of communication, the relations of decisions to the perceptions of staff members, the principal's role as mediator in trying to assure that decisions strike an optimum balance between the requirements of the formal organization and the needs and desires of the staff.

Theory will *not* supply the administrator with pat answers, with formula panaceas, with easily applied gimmicks. It requires the employment of his thoughtful intelligence in its application. It *will* provide the principal with a structured way of viewing his task, helping him understand why certain courses of action, certain behaviors, are likely to be fruitful and others not; to understand factors in the situation which will help or hinder his task; to understand and interpret the consequences of administrative action he has taken.

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Principals, Common Varieties of

PrinciPULL—a name dropper and influence peddler who, chances are, has a father or brother on the school board. Can be easily recognized by his favorite phrases "confidentially" and "*I* told him."

PrinciPILL—bad medicine and a real pain in the neck. This fellow acts as though the worst will happen and is seldom disappointed.

PrinciPULP—obviously lacking a backbone, this jelly-like individual is shaped by whatever pressure is current.

PRINCE-a-Pal—a right guy who puts the good of the kids and his staff first.—William C. Miller, Detroit, Mich., in *Overview.*

A Look at Research on

Grouping Practices

Sarah Lou Hammond

In The Delta Kappa Gamma Bulletin

IN the early days, education in this country was almost entirely individual teaching. Perhaps once a day each child recited his quota of memory work. This was necessary because each class was composed of individuals of different ages and attainment.

As urban communities developed, school enrolments grew rapidly and attempts to teach children in groups began. In 1837 *McGuffey Readers* were published, the first graded textbooks in America. By 1870, the schools had been graded and courses of study were prescribed. It was assumed that a curriculum prescribed in terms of subjects to be learned would be best for all children. When this assumption was tested, it was discovered that individuals learn different quantities of subject matter at different rates. Some plan had to be devised to provide for the differences.

One of the many experiments made was the classification of students into homogeneous groups on the basis of their ability to do school work.

By 1926, homogeneous grouping was a widespread practice, as revealed in a report by the United States Bureau of Education. In 1934, an investigator contacted systems listed in the Bureau's report and found indications of a definite trend away from homogeneous grouping in many systems which had used it for years.

Today's concern regarding public education has brought the problem of grouping into focus again. There has been a tendency to turn back to practices which, according to Helen Hey, were "all efforts to solve some of education's profoundest problems by schemes which recommended themselves, in some cases, more by administrative convenience than by depth of psychological insight into children and how they learn." It is timely to examine some of the research related to grouping.

One of the most comprehensive studies of homogeneous grouping was made by Alice Keliher in 1931. She made a critical analysis of basic assumptions underlying this method:

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1. Intelligence is so adequately measured by verbal intelligence tests that the results may serve as basis for action which concerns the whole individual.
2. Homogeneity of grouping reduces the range of variation within a grade.
3. Homogeneity of grouping tends to bring superior learning results.
4. Homogeneous grouping provides for better attitudes in pupils.

The following are some of Keliher's conclusions, supplemented by research from other sources.

MEASUREMENT

First, the contention that types of intelligence needed in schools are adequately measured by tests has probably arisen from definitions of intelligence as ability to learn, interpreted narrowly as acquisition of academic skill.

Keliher presented profiles of three children who attained identical MA scores, but whose achievement in the 10 separate categories of the test varied from a score of 2 to 13 on one category, and from 6 to 16 on another category. Keliher concluded that the assumption that two children of the same mental age are alike and require the same educational program was fallacious.

Another investigator attempted to find out the variability of individual scores on five intelligence tests, given by the same examiner over a period of four weeks. Of 33 subjects tested, he found that 35 percent deviated, on the average, 10 months or more on the five tests. He pointed out that, according to this ratio, if a third of the children may be approximately a year younger or older mentally than a single test result showed, then this measure appeared too unreliable for classification purposes.

REDUCTION OF VARIATIONS

In regard to the reduction of variations, one study revealed that after grouping had been carried out, four-fifths of the total ability range in the original undivided group remained in each of the so-called homogeneous groups. According to another investigator, it would be fortunate if grouping reduced the range by one-fifth.

This belief that the group is homogeneous can be dangerous. The teacher may assume that the group is superior or slow and teach as if all children were of this type, rather than providing for the range of individual differences.

SUPERIOR LEARNING

Testing the assumption that grouping tends to produce superior learning results, Ethel Cornell reported, "A review of objective results of ability grouping leaves one convinced that we have not yet attained any unequivocal experimental results that are capable of wide generalizations." Miller and Otto analyzed 13 studies of homogeneous grouping and concluded: "If one were to make a final summary statement . . . one would have to say that, so far as achievement is concerned, there is no clear-cut evidence that homogeneous grouping is either advantageous or disadvantageous."

BETTER ATTITUDE

Results of two studies reported by Keliher do not support the assumption that homogeneous grouping provides for better attitudes. She observed the responses of children in three classrooms grouped heterogeneously.

Progressive practices were followed in the three classrooms observed, and Keliher reported that discouragement and suppression did not necessarily occur in mixed groups in any fixed relation to intelligence.

After asking 505 other children to make statements that would indicate their knowledge or lack of knowledge of the basis of their own grouping, Keliher concluded: The children did seem generally to know their own grouping; and the responses indicated the presence of many self-pictures, a large number in terms of inferiority or superiority to other children.

Findings of other investigators supported the above. Interviews in one research project indicated that children classified as "dull" felt stigmatized and that the bright ones were snobbish.

For a time, during the years 1935-1950, interests of teachers and administrators changed from narrow issues of ability grouping to concerns for well-rounded development of the child in which emotional, social, character, and personality development received as much attention as scholastic achievement.

In the 1950's there was renewed interest in grouping methods and approaches to instruction. Research and enthusiasm were directed toward the nongraded elementary school. One recent investigator identified 31 grouping plans including varieties of ungraded groups, track plans, sociometric groupings, interclass groups, and social maturity groupings. When plans for TV instruction, the dual progress plan, selfcontained classroom, and team teaching are added, the number becomes even larger. Noticeable differences in both practice and opinion are evident.

It is important in evaluating plans for grouping that the objective sought be kept in mind. Helen Hey expresses that objective as being "to place each child in an educational setting which affords him an optimum, well-rounded opportunity for learning, without hampering his physical and social development or his emotional adjustments."

In that context, whatever the grouping practice adopted, an able teacher, given freedom to work creatively, is the most important factor in the situation. As Harold Shane has said, "The philosophy and ability of the able teacher are undoubtedly more important than any grouping plan, however ingenious it may be, with respect to creating good environments for teaching and learning." •

Ratings on the "A Line"

Is TV Accessible?

Louis Forsdale

In The NAEB Journal

ONE important criterion to consider in assessing the value of a medium used for formal educational purposes is the accessibility of its materials to the learner. One may properly ask of any educational medium, "Can the learner use its products when he wants, in a place convenient to him, and as many times as he wishes?"

A convenient tool in thinking about this idea is the "A Line" (Accessibility Line). Imagine a horizontal line, and let the right end of the line represent educational media whose products the learner has ready access to when he wants them. Let the left end stand for media whose products are not available to the learner on demand, because of technical or economic problems. Along this line, placed appropriately between these two poles, distribute all media used in education.

At the right end (greatest accessibility) would be the book. This durable, portable, inexpensive medium requires no machinery and makes materials physically available to the user perhaps more readily than any other communication tool. This is not to imply that the book is in all ways a superior educational medium, for print symbolism, although accessible, is demonstrably inferior in other ways to such media as film and television.

Among media requiring equipment, the disc recording falls fairly near the right end of the "A Line." Discs are frequently stored in libraries and the equipment is easily operated by students.

The new teaching or learning machines will also fall near the right end of the line if the mechanism is simple and inexpensive enough, and if there are enough programs to feed the machines. And well they should meet the criterion of accessibility, for they are designed precisely to serve the individual, selfdirected student.

Without attempting to list in detail all media near the right end, let us consider the left end and the media whose products are not randomly accessible to the learner. Television falls to the far left. The

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student cannot select from among the full range of past and present programs the one which he would like to see now, for programs in broadcast TV are controlled at point of production, not at point of reception.

The educational motion picture falls somewhere to the left of center of the "A Line." As matters stand, the student cannot necessarily get a film when he would most benefit from using it. In most schools his teacher orders the film in advance from a central film library, an arrangement dictated primarily by the cost of prints. When the film arrives, it cannot be shown without using a complicated projector in a darkened room. The child cannot project the film, as he might play a phonograph record or study a filmstrip. Finally, the film must be returned on schedule and, like the television program, it is transitory.

MAJOR WEAKNESSES

We can conclude this: Both television and film have major weaknesses. Any medium by which packaged materials are presented to students is *deficient* to the extent that those materials are not available to the learner on demand.

Live presentations are a different matter, for by definition, they are accessible only at the moment. But with canned materials, we should never lose sight of the desirability of moving them toward the right end of the "A Line."

The accessibility problem is recognized by experts of both television and film. Apparently both can be pushed toward the right of the "A Line," eventually. Technical and economical factors favor film heavily in this respect. This raises serious questions about the wisdom of a commitment to television for in-school use.

The technical problem with television, in this context, is that of developing simple and inexpensive videotaping equipment which can be located in schools to preserve broadcast signals for playback at desired times. Regrettably, the distance between theoretical and practical resolution of this problem is great. Videotape machines in the $25,000 range have recently been announced (still a formidable price for a school budget) and great technical skill is required to operate and keep such a machine in repair. Also, a single videotape record-playback machine does not improve greatly the accessibility; it would be like having all library books on microfilm but with only one reader at hand. It is not likely that small economical videotape machines simple enough for children to use will be realized soon. We are in the position of being able to take signals off the air, at considerable expense and labor, but nowhere near the point where a large stock of tapes can be placed in individual schools, not to mention in the students' hands.

A second means of moving television to the right end of the "A Line" would be locally produced kinescopes, but quality here is notoriously poor, and, if film is used, one wonders why it shouldn't be delivered that way in the first instance.

Motion pictures are much nearer the right end of the "A-Line" than television because of two developments. The first is 8mm sound film. Almost unknown in education today, it soon may challenge the traditional dominance of 16mm film. Within a few months, some laboratories will be ready to supply mass runs of 8mm sound film at costs much lower than 16mm. This could be the film's equivalent of the paperback book.

The second development is the imminent breakthrough to simple projectors. There are many possible approaches to simplification. The most dramatic new approach is the cartridge-loading projector into which the child or teacher could shove the film, and, in effect, say "Go."

There are at least three prototypes of full cartridge-loading 16mm machines in existence today (although none is as simple as it must be for purposes described here). At least two companies are working on full cartridge-loading 8mm projectors. Remaining bottlenecks should be solved soon. If that estimate is inaccurate, other approaches to projector simplification – slot-loading or automatic threading machines—could be no more than months away. All of these projectors can be made in rear-screen projection types which, like television, can be seen in a lighted classroom.

This comparative look at the possibilities of moving television and film toward the right end of the "A Line" suggests strongly that film appears to be in a favored position for the years ahead. However, random accessibility is not the only factor in deciding whether to deliver materials in electronic or photographic packages. Cost is important, if not decisive; but who knows which is the more costly, particularly with the advent of 8mm sound film. Teacher and student media preference is important. But do we know enough about that? Immediacy, or at least timeliness of material—whether a reality or an illusion—is significant. Quality of the image is also a factor. Planned obsolescence of material is another. And the subtle, but real, aesthetic differences between the two mediums should be considered.

An attractive way to get insight into significance of the accessibility question and into other factors noted, particularly cost, would be to set up an experiment with two large educational groups—city, state, or region. Provide both groups with the same material, one by broadcast television, the other with libraries of 8mm sound film in individual schools, supplemented as new programs are available by mail deliveries. See that the "television schools" are equipped with good receivers and that the "film schools" have the simplest projectors available. Then study the results. •

No "Either-Or" Dichotomies

Whitehead's Implied Philosophy of School and Society

FRANK C. WEGENER

In Educational Theory

THE late Alfred North Whitehead wrote separately in the fields of philosophy and education. He did not fuse the two fields in a general philosophy of education, nor in a specific philosophy of school and society. Although making no deliberate attempt to set forth a systematic philosophy of education, Whitehead did, however, lecture and write on a variety of educational problems.

In harmony with an assumption that Whitehead gave us an implicit philosophy of school and society, but not an explicit one, we shall take the liberty of making inferences with respect to the functions and tasks of education and schooling. These propositions will provide a tentative outline for such a philosophy of school and society. They are partly inferred from Whitehead's social philosophy and partly derived from and supported by his writings on education. They represent my own interpolations and I take responsibility for their normative forms of statement.

THE WHOLE INDIVIDUAL

The proposition that the schools should contribute to the education and development of the individual as a whole is in harmony with Whitehead's social philosophy of qualified individualism.

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Illustrative of his thinking about individual development is the observation: "Education is the guidance of the individual towards a comprehension of the art of life; and by the art of life I mean the most complete achievement of varied activity expressing the potentialities of that living creature in the face of its environment."

Further, Whitehead's writings are replete with the following themes: schooling is to involve the art of living and should not be limited to narrow academic concerns; education cannot properly treat the individual in isolation, but it must be concerned with his many-sided relations to society; education has nothing to do with inert ideas, for it is properly concerned with creative thought; education must not be one-sided in its emphasis, for it must include the physical and the mental, the humanistic and the scientific, the theoretical and the practical, and the literary and the technological.

SOCIETY RECONSTRUCTION

Although Whitehead did not state overtly the following proposition, it can be inferred as a corollary of his social philosophy: The schools should contribute to the dynamics of social reconstruction through the education of individuals in a social context.

In this respect there is a similarity to John Dewey's educational philosophy. Both saw the importance of critical evaluation of the cultural heritage and the reformulation of values, ideas, and social institutions with the dynamic advances of society. Dewey has no doubt made a more overt statement of education's function by way of social reconstruction; but Whitehead, in different language, also insisted on the importance of our re-evaluation and restatement of this heritage.

The following concepts are essential to any systematic development of philosophy of school and society as emanating from Whitehead's thought: re-evaluation of the cultural heritage within the context of education; the organic relatedness of individuals in society; and education as an essential agency in the creative advance of society.

Despite an apparent similarity here between Dewey and Whitehead, there are important differences. Whitehead, unlike Dewey, places considerable emphasis on subject matters of the past, stressing importance of the classics, languages, literature, and other humanities as contributing to the thinking capacities of the student. Whitehead retains much of the classical conception of education despite his concessions in the direction of dynamic and even progressive education.

SELFREALIZATION

As a corollary to the above, it seems justifiable to say that the schools should act as the catalytic agency of society in the processes of selfcreativity and selfdetermination. This is inferred from Whitehead's general interest in creativity and it is supported by his observations on the dynamic aspects of the educational process.

In the metaphysics of organism, it is held that all actual entities are in a process of selfdetermination. The human organism, or actual entity is no exception; he is a prime example. It follows that the learner should be treated in the context of creativity and selfdetermination. The educational process then becomes one of intelligent and purposeful selfrealization.

The task of the schools is no longer conceived as a simple transmission or inculcation of subject matters. In Whitehead's words, the task is one involving "the art of life." Education in this sense takes on all the comprehensiveness and vitality of life, being rightly concerned with problems of purpose, direction, and value both individually and collectively.

There are both conservative and progressive aspects of culture; and there are both conservative and progressive functions of education. That the schools must nurture both conservative and progressive aspects of culture is another proposition inferred from Whitehead's social philosophy. Since he emphatically stated that conservatism and progressivism are complementary in dynamic society, it seems logical and reasonable to infer that they, too, apply directly to the functions of education. Maintaining Whitehead's organic conception of balance between complementary forces or principles, we can oppose a one-sidedness of either principle. Traditionalism can be said to err on the side of emphasis on conservation of the past, and progressivism can be said to err equally in the direction of progressive reform. The task of the schools, then, is to maintain these dual functions in balance.

AESTHETIC AND INTELLECTUAL

From the emphasis Whitehead places on aesthetics and art in his philosophical writings, the following inference is justified: The schools should attend to the balanced development of both aesthetic and intellectual aspects of education.

Whitehead's writings support this. He wrote, "In philosophy, the remedy is to recognize more fully the role of values in existence; in industry, to put more stress upon quality and human costs; in education, to foster wide humanistic sympathies and the appreciation of beauty and art." Here he is referring to art as a means of overcoming the industrial dehumanization of man. He also stated, "A civilization that neglects art for the sake of specialized education, competitive business, or scientific and technological advancement, is cutting the roots of its spiritual powers."

SCIENCE AND HUMANITIES

In regard to the scientific and technological functions of education, Whitehead's writings infer that the following proposition is warranted: The schools must coordinate scientific and technological aspects of education with its humanistic and academic counterparts in the total curriculum.

The following quotation is but one of several supporting statements in the essay "Technical Education, Science, Literature," written many decades ago. "The antithesis between a technical and a liberal education is fallacious. There can be no adequate technical education which is not liberal, and no liberal education which is not technical: that is, no education which does not impart both technique and intellectual vision." The essay then amplifies the idea that every form of education should include a science, general ideas, a technique, and aesthetic appreciation.

It appears that in the current controversy over the amount of science and humanities needed in the curriculum of general education, Whitehead would favor a balanced and complementary program of studies.

FREEDOM AND DISCIPLINE

As an inferred corollary of Whitehead's complementary principles of freedom and routine in his social philosophy, we have the following principle: The schools have the task of maintaining a balance of freedom and discipline. In one sense, the schools should nurture these principles for the ultimate effects on society. In another sense, the educational process itself, organically conceived, demands it.

Freedom and discipline, he points out, are complementary aspects of the educational process. Although freedom is the ultimate goal, there is necessarily the aspect of discipline and precision within the total cycle of learning.

PERSUASION OVER FORCE

If there is one predominant theme to Whitehead's outstanding work, *The Adventure of Ideas*, it is that the destiny of mankind depends on his capacity to achieve the victory over force. The rapid advance into the Atomic Age has made this ideal a stark necessity, if mankind as we know it is to survive. The veritable fate of mankind hinges on man's abilities to use peaceful and rational forms of negotiations to resolve the constantly emerging differences of both major and minor powers. All of man's sagacity, selfcontrol, self-discipline, intelligence, and wisdom are needed to maintain a semblance of world peace.

It is clear that this becomes the interest of every individual and every social institution. The schools must bear the burden of developing man's capacities in this direction. The teaching of the art of living—the art of living peacefully and intelligently—is the tremendous task for education.

Yet as I state these ideals and convictions, I realize that paradoxically we must educate for adequate military and scientific defenses at the very same time we work for realization of a permanent peace.

It is evident that a projected philosophy of school and society based on Whitehead's philosophical and educational writings would be most comprehensive in character. Such an educational philosophy would reject "either-or" dichotomies, such as progressive or conservative, theoretical or practical, classical or modern education; it would insist on complementary relations of these opposing views.

The virtues of Whitehead's comprehensiveness in these foregoing respects are fairly clear. It is certainly patent today in educational philosophy that there are strong validities in these competing but one-sided doctrines. Yet, it remains a task for educational philosophers to integrate these many principles of social and educational thought into a real unity. ●

Benefits Based on Many Factors

Retirement Systems:

1961 Statistics

In NEA Research Bulletin

WHILE many teachers know very little about their retirement systems—except the amount they must contribute—many can tell you precisely how much their retirement benefits will be. Teachers *should* know that the benefits they will receive are based on many factors: their contributions and those from public funds, administration of the system, investments of the system, the return on those investments, among other factors.

Administrators of retirement systems are familiar with these factors and have cooperated with the NEA Research Division through the National Council on Teacher Retirement to collect information. The following is information revealed in a study based on questionnaires completed by retirement administrators for 64 systems.

$7.3 billion is invested by 60 teacher-retirement systems.

1.85 million active members are enrolled in 64 systems.

Over 200,000 retired persons are receiving benefits from 60 systems.

Nearly a million members (not all are teachers) of 41 systems are covered by social security.

Thus, teacher-retirement systems are rendering service to nearly 2 million persons, active and retired, and, with more than $7 billion in investments, have a significant part in underwriting governmental and corporate enterprises in the United States.

All but one of the retirement systems to which teachers belong are joint-contributory. That is, the teachers and the public have joined to produce the funds which are necessary to provide retirement benefits. Contribution rates of the members vary among the systems. There are several reasons for the variation in rates, one being that organization of the systems and benefit formulas differ.

Also, in states where teachers are covered by social security, different methods of reflecting this coverage have been used. In some systems, contribution rates did not change when social security was adopted. Social security is, therefore, fully supplemental to the system. In other systems, changes

Reported from NEA Research Bulletin, *XXXIX (December 1961)*, *124–26*.

have been made to reflect social security coverage. Thus, a teacher might contribute to the retirement system a certain percentage on salary to $4,800 and a larger amount on salary over that amount. This takes into account the fact that he is also contributing to social security on his salary to $4,800.

Such factors must be kept in mind when considering information from this study on the amounts members contribute to their systems.

AMOUNT CONTRIBUTED

Eight state systems and three local systems base the contribution rate on the age and sex of the member when he enters the system. Four state systems have two rates–3 percent and 5 percent–depending on the amount earned. Members of three of these four systems are also covered by social security. One local system has different rates for men and women. Of the remaining systems, 16 set a 5-percent contributing rate and 11 set a 6-percent rate. Fifteen systems have rates below 5 percent, and four have rates above 6 percent.

Twenty-four state systems and 12 local systems have not set salary ceilings on which contributions are paid, although in a few of these systems rates vary for certain salaries, and in a few others, contributions are optional on the part of a member after a certain salary level is reached. Of the remaining systems, 13 set a salary ceiling at $5,000 or below, and 13 set a ceiling of $6,000 or above. Of this latter group, four have ceilings ranging from $8,000 to $8,500 and one sets the ceiling at $15,000.

REQUIREMENTS

What about requirements for retirement? Thirty-five of the 53 systems answering this phase of the survey set the normal retirement age at 60. Fifteen set the retirement age at 65. The number of years of service ranged from any number of years to 35. Three systems set the normal retirement at age 60 or 65, plus alternatives permitting retirement on certain years of service regardless of age. Twenty-seven state systems and all 20 local systems reporting set compulsory retirement ages.

Of the 59 systems reporting investment information, 27 have over 50 percent of their investments in U.S. government securities. Six systems invested only in these securities. There is a trend toward liberalization of investment policy, although six systems reported that they were ineligible to invest in stocks, and nine reported that they were ineligible to invest in corporate bonds.

Thirty-six systems have funds in corporate bonds ranging from less than 1 percent to over 80 percent. Nineteen systems place more than 40 percent of their total investments in corporate bonds. Thirty-two of the 36 systems investing in corporate bonds hold public utility bonds. All but four of these 32 systems have 50 percent or more of their corporate bond investments in public utility bonds; 12 report over 80 percent.

The annual income reported for 61 state and local systems from public funds totals over $500 million; members' contributions total almost $500 million; and 59 systems report a total of over $400 million from investments. Almost one-third of the income of these systems comes from investments—a further indication of the importance of sound investment management.

Sixty-three systems reported that over $300 million was disbursed to retirants and beneficiaries in 1959-60.

Total income and total disbursements for 62 systems in the same year each amounted to about $1.5 billion.

The purpose of a retirement system is to provide a dignified exit from active service for teachers whose usefulness has diminished through age or permanent disability and thus to give school children the advantage of instruction from younger and more vigorous teachers. To accomplish this purpose, a retirement system should provide an adequate retirement income for the career teacher.

Not all retired career teachers are receiving adequate benefits. For example, in the study being reported, the median average annual allowance paid was $1,748; the annual allowances paid ranged from $439 to $3,918. Averages, however, can be misleading, for included in them are benefits paid to teachers who are not career teachers—teachers who retired early and with few years of service. Also, the benefits reported were from the retirement systems only. Many of these teachers also receive social-security benefits which are not reflected in the benefits reported.

These factors must be considered when averages are discussed. The fact remains that the goal of 50 percent of average final salary has not been met by all the systems. Members of the profession and those who work in retirement are striving to improve the systems. The amount of allowances indicates that further improvement is necessary. •

Retirement Thoughts

Even though some of your fondest dreams fail to materialize, you can be thankful that many of your nightmares didn't come true, either.—From *Journeyman Barber.*

It's a good idea to save your money—it may be valuable again someday.—From *Midland Schools.*

Middle age is that difficult period between juvenile delinquency and senior citizenship when you have to take care of yourself.—Harold Coffin in *Los Angeles School Journal.*

A Follow-Up Study

Science-Career Motivation—Does It Last?

HUGH ALLEN, JR.

In The High School Seniors: Two Years Later

THE problem of educating professional, scientific personnel in the quantity and quality desired to maintain a high level of scientific progress is being emphasized today. In a democracy where there is free choice of occupation, and often too little real guidance, the process of channeling enough high-ability young people into the scientific enterprise is complex. Because choice is involved, the question arises as to why more young people are not selecting scientific careers.

A study made in 1957 was designed to procure information on this problem. It sought to determine the attitudes of high-school seniors toward science and scientific endeavors; the relationship, if any, of those attitudes with those who were contemplating scientific careers; and the relationship of the attitudes with intelligence. Questionnaires were administered to 3,057 high-school seniors enrolled in 20 of New Jersey's accredited public high schools.

Of the total number, 531 seniors (17.4 percent) indicated that they had chosen a scientific or engineering career and that they thought it would be feasible for them to achieve their objective. Another 57 students (1.9 percent) gave a scientific or engineering career choice, but indicated that for certain reasons, largely financial, it would be impossible for them to achieve this objective.

In 1959 a follow-up study was made of these students. This, then, is essentially an inventory of selected respondents two years later.

Generally speaking, the purposes of the 1959 study were to determine what percentage of members in the top half (intelligence) of the group studied in 1957 had adhered to their earlier career choices and to identify any shifts in attitudes among members of this population.

It was found, in 1959, that only 56.8 percent of the selected seniors were enrolled in a college. These

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252 students were attending 108 different institutions. Of those who chose a scientific occupation in 1957, 75 percent were enrolled in a college program. Of those who had chosen an occupation other than science but who had expressed an *interest* in science or engineering in 1957, only 43.1 percent were enrolled in college. Of those who in 1957 had neither chosen a scientific career nor expressed an interest in scientific or engineering careers, 50 percent were in college in 1959.

Twenty-five students had changed colleges during this two-year period. The reason most frequently given for the change was dissatisfaction in that their expectations were not realized.

These data indicate that 43.2 percent of the seniors studied in 1957 did not enrol in college, even though they may be presumed to have possessed the intelligence to succeed (that is, they were in the top half of their graduating class in intelligence) if they had done so.

CAREER IDEAS CHANGES

Of those choosing scientific careers in 1957, and who reported that their career choice was feasible, 75 percent were enrolled in college in 1959. But only 29 percent held to their original career choices. Another 19.9 percent had changed career choices but still had a scientific or engineering objective. This is a total of 48.9 percent of the 1957 group who were continuing their college preparation to become scientists or engineers in 1959.

In addition, 10.2 percent of those presumably sure of their science-career choice in 1957 were uncertain as to what they wished to do in 1959; 29.5 percent had changed to some choice other than science; and 11.4 percent had chosen science-related occupations. Of those expressing an *interest* in science or engineering in 1957, but choosing another career then, 16.7 percent changed to science or engineering during the two-year period. Despite this gain, there is still an overall 18.9 percent loss for the two years.

The loss may appear relatively large, but it must be considered that attrition during the first two years of college is high in general. Also, quite a few students do change their career objectives; some are still uncertain at graduation. Perhaps an 18.9 percent decline is to be anticipated.

The 1959 study also revealed data significant in a larger social context. The reasons for not attending college given by students who in 1957 were planning scientific or engineering careers were mostly financial, but lack or loss of motivation, military obligation, and indecision as to career choice each accounted for a substantial portion of the causes cited.

GENERAL CONCLUSIONS

Generalizing from these data and other information obtained from the 1959 study, it may be hypothesized that:

1. Far too many high-school

graduates with better than average intelligence do not go on to college (43.2 percent in the sample studied).

2. Inadequate finances is the most frequent explanation given for not going to college.

3. Underestimated intelligence and lack of motivation seem to be deterrents to preparation for careers in the scientific enterprise. Students abandoning scientific careers exhibited a tendency to question their intellectual ability and to ask whether the education in science was worth the time and energy involved.

4. Career objectives were not firmly established when the students graduated from high school. The majority of students in this survey changed their career objectives after high-school graduation.

5. Approximately 16.7 percent of students who had nonscience objectives in 1957 but had expressed some interest in the field had changed to science objectives, including engineering education, in 1959.

6. Students who had nonscience objectives and expressed no interest in the scientific enterprise in 1957 had contributed no members to the science-career group in 1959.

7. Some colleges do not measure up to the expectations of some young people in this selected population. This fact appears to account for a number of transfers.

8. Attitudes relating to the scientific enterprise held by students planning scientific or engineering careers generally become more constructive during their undergraduate college years.

It seems evident from the data that far too many qualified young people do not enter college; too many are not motivated to seek careers in the scientific enterprise when they leave high school; and too many who are so motivated lose this motivation after they have embarked on a program of higher education.

RECOMMENDATIONS

In the light of findings of this study, several recommendations seem to be in order:

First we need to find some formula that will insure college careers for a larger percentage of qualified high-school graduates. Second, we must continue to improve our science programs in the schools, and in the colleges as well, so that motivation is established and maintained throughout the formal educational experience. And finally, our school guidance program needs to be examined. In 1957 it was reported that "only about 9 percent of the country's high-school guidance counselors have a science background." Herein lies a problem that has long been ignored. While some guidance may be supplied by the school science teachers, it is suspected that professional guidance personnel need a far better understanding of the real nature of science and the scientific enterprise. •

Teaching Techniques in the Language Laboratory

JOSEPH C. HUTCHINSON

In The Language Laboratory

LANGUAGE-laboratory equipment presents many useful opportunities for teachers to develop techniques. Some will be tried and found successful; others will be abandoned. The following will present some techniques and procedures which have been found useful.

In sharing the teaching role with recorded material, the teacher should remember that he is master of the master program. A tape should not be allowed to play on and on if many students are having difficulty. Either the material is too difficult or the students have had insufficient basic practice with it in class.

Even with carefully-planned tapes (including "automated" tape lessons) the reactions of different groups cannot always be predicted. The teacher, though, can respond instantly to the immediate learning needs. Some exercise may require more repetition for overlearning than others. The necessary length and sequence of these can be predetermined to some extent in a well-planned tape lesson, but not so accurately as genuine programed materials for auto-instruction, which are still in the experimental stage. The teacher's sensitivity to the students' immediate needs should compensate for many of the inadequacies of recorded practice materials.

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During the first laboratory sessions, the teacher must give student orientations on operation of the equipment, on the reasons for the laboratory practice, and on the procedures that will be used in practice sessions.

A teacher should have considerable experience with language-laboratory instruction before employing more than one program source at a time. It is extremely demanding to teach effectively using multiple program sources simultaneously, even if the programs are on the same level of instruction. To attempt it with different languages at differing levels of instruction may confuse and frustrate both teacher and student.

Variety is a necessity in matching drill, since a certain amount of saturation practice is necessary for the memorization and overlearning required in developing automatic response habits. Each student should be actively involved and challenged during machine drill sessions. It is important to keep alert for signs of fatigue among the students. A change in activity or pace should be made if boredom or fatigue is detected. Boredom may result from material that is too difficult, too long, monotonous, or lacking in challenge. Boredom also occurs from a lack of full integration of class and laboratory activities, or as a result of poor audio quality in equipment. Occasionally, changing the listening medium from headphones to loud speaker provides a helpful variation.

Even though the laboratory may consist only of a recorder or a few listening stations, the teacher can use these facilities profitably. The teacher may move about the room correcting inadequate responses or may at times divide the class into small groups. One or more groups can engage in listening practice with headphones while the teacher conducts oral drills or conversation practice with others.

With a teacher console, many of the physical motions involved in guided practice can be handled more efficiently and conveniently. However, what the teacher does with the equipment is more important than what the equipment does for the teacher. At the console, the teacher has immediate access to the recorded program source and easily controls its movement. He also can give reinforcement to the program at any instant it is needed. Lengths of such interruptions will vary with the situation, but comments or explanations during machine drill should be brief, normally not more than 60 seconds.

MONITORING

Some systems provide monitoring facilities at the console permitting the teacher to listen selectively to individual students. This provides a swift, convenient means for evaluating each student's performance. On some panels, a cardboard template can be placed over the switches so that each student's name appears under the switch corresponding to his station.

There is some opinion that monitoring carries with it an emotional connotation of eavesdropping. This is not a problem if teacher-pupil rapport is maintained. It should not be any more of a problem than student responses made in normal class situations.

If the console has only one-way monitoring facilities, the teacher may have to wait until the end of the machine-drill session to follow-up corrections of errors. Otherwise, the teacher must leave the console and go to the student's station. Some systems provide monitoring outlets at each station, permitting the teacher to go from student to student, plug in his earphones, and hear both program and student.

A console with two-way communication permits follow-up immediately. More individual contacts are possible, if the teacher makes full use of the facilities by diligent attention to student responses. A student response can be heard and corrected in a few seconds. This spotchecking can provide rewarding reinforcement. Even when there is no error in a student's response, there is value in an encouraging remark—the student needs to know when he is correct as well as when he is wrong.

TIMING CORRECTIONS

The timing of corrections is important. For example, correcting a student before he has finished his response can have a damaging effect. The teacher must also decide whether correction of an error is worth having the student lose contact with the program, which may be more important to him at the moment. This is especially crucial when the student is recording the program and his alternating responses.

Particularly in the coaching of pronunciation, the teacher must be ready to provide concise suggestions on how to produce sounds which may be difficult for the individual student. Sufficient listening and imitation practice will serve to avoid most pronunciation errors, but there may be a wide range in imitation ability among students. Some may have persistent difficulty in producing certain sounds. The student may or may not be aware of incorrect responses. Even if aware that his version is incorrect the student may not know what to do to correct it. Student misperception of sounds can usually be corrected more efficiently by demonstration than by explanation. Exaggeration or distortion of the model by slowing it down too much should be avoided. The sounds should be returned to their normal and natural position in the utterance as part of the demonstration. Recording the model and the student's response may offer a more forceful demonstration.

Length of laboratory sessions may vary considerably, but a daily session of 20 to 30 minutes is more likely to produce effective results in audio-lingual proficiency than the same amount of time concentrated in one or two sessions per weeks. Also, the length of individual lesson tapes may vary considerably, depending on the number of repetitions of each item. Much time and effort can be saved in the stopping and rewinding of lesson tapes if enough repetition of each item is included.

The format of a lesson tape should be skeletal in design; almost all the tape should be reserved for actual practice material. For easier presentation and teacher control, a lesson tape for audio-lingual practice should not normally contain more than 15 minutes of recording, and preferably much less.

Except for special occasions when it is more efficient for the teacher to give instructions in English, the use of English in class and laboratory should be avoided. The foreign language should dominate throughout. •

Norms and Progress

CARLIN ADEN

In Phi Delta Kappan

NORMS are safest for those who find them distasteful. They are for diagnosis and cure, but they can be habit forming and growth inhibiting.

As an administrator, I am convinced that education is too preoccupied with normative practices. I am uneasy about some of the implications.

In the stack of daily mail there is an envelope containing a letter and a form to fill out. It may come from a curriculum committee, grading committee, building committee, principal, superintendent, or guidance director. We recognize the opening sentence of the letter: "The purpose of this survey is to determine the prevailing practices in . . ."

I should like to think that the purpose of this and all such inquiries is analysis and growth, not timidity and the need for documented conformity; for norms can become goals, in which case they are dangerous.

Plato believed that back of each earthly object was an ideal form, and the things we earthlings could perceive were but imitations of this ideal. Of course Plato held the imitation to be less than the ideal.

If in a survey we seek the norm as a goal, it becomes an ideal. When we try to re-create it, we create something that is less than the ideal. This is to say that in taking a norm for a guidepost we are in real danger of creating something less than the norm.

It follows that a system dedicated to norms and averages is soon on the skids. To great-minded men, the ideal is the highest, and the norm is merely the measure of our error.

When we meet a man who is concerned with excellence, we don't expect him to enquire after norms. He already knows what they are because he is wise. If he doesn't know *exactly* what they are, it is because to him they are no longer important.

However, norms may be useful in a way we don't suspect. By using them as reference points, there is a sort of trigonometry by which we can chart how far ahead the man of excellence has gone. •

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Lecture Method in the Junior-High School

ROBERT W. CARR

In The Social Studies

SINCE John Dewey, there has been quite general agreement that children cannot be lectured. Students get bored, it is thought, and a lecture cannot stimulate interest or employ enough different student facilities to make it effective. I maintain, however, that boredom is not a necessary relative of lecturing, and the lecture method needs to receive its due as an effective means of teaching social studies in the junior-high school.

The "lecture method" contains several features and qualifications. First, lecturing must be combined with several other methods of work and presentation during a semester. No single method can suffice for instruction in the junior-high school, and other methods need to be used when the situation dictates.

In many situations the lecture is the best possible way to teach a lesson. At a time when common learnings are desired, for example, the teacher can efficiently create an atmosphere of learning and present material better by proper use of the lecture than is possible in committee work, group discussion, or work books.

Secondly, the use of visual aids is of prime value in lecturing. Pictures, diagrams, charts, maps, graphs, and the like are a necessary adjunct to the lecture method at this age level. They should not dominate, but should serve as illustrative and reinforcing techniques. Films have a natural supplementary value, and filmstrips most often can serve illustrative purposes during a well-constructed lecture.

Third, the lecture should not last more than 20 minutes usually, and provisions for questions and answers must always be made. From what has been learned about attention-span factors, the 20-minute maximum seems a reliable guide. Individual teachers, however, will vary this according to the nature of the group, the amount of visual aids used, and the content of the lecture.

Enough time must be set aside for students' questions. Without prior knowledge of this opportunity, student interest may decrease as a sense of personal involvement is lost. Except in cases of obvious need, questions should not be allowed to interrupt the lecture, or

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disruption of thought and discontinuity in reception results. The primary aim must be to present a flow of thought leading logically from one portion of the lecture to the next.

The time allotment for questions must remain as flexible as possible, depending in large measure on the subject matter involved. For example, an excellent subject covered by lecture with supporting diagrams is the process of making a bill a law in the Congress. In this instance, questions are innumerable and often lead to areas somewhat outside the topic. A great amount of class time is usually needed here and a good technique is the submission of individual questions on paper, which can be arranged by sub-topic and answered next class meeting. This has the further advantage of serving as a carry-over from the previous class and a reenforcement of learnings.

Strict responsibility for material presented in lectures must be fixed on the student. He must understand that he will be held accountable for all lecture material for, as with any approach, evaluative devices need to be employed to judge success. The whole technique loses its value when student-understanding is not tested.

The surprise quiz has particular adaptability here. Used effectively, it can encourage daily preparation. The prepared student then finds the lecture more meaningful and the teacher finds a student familiar with the subject. Short surprise quizzes lend variety, zest, and interest to class proceedings and, realistically, the lecture is more welcome when it comes as an alternative to a quiz.

SUGGESTIONS

A few words of caution: Use of the term "lecture" should be avoided—too often young people associate this term with discipline. Good public-speaking principles—directness, posture, voice, etc.—are important. Note taking is vital to the lecture process. The method loses value if the student only sits and listens. Periodic pauses, suggestions for notes, along with important required notes, cause a sense of participation in the unfolding of the lecture. Usually, orientation to proper note-taking techniques is in order, and periodic checking of student notes is desirable.

The lecture method in junior-high-school social studies is opposed by those supporting the view that activity and constant creation are necessary for learning. Many teachers, however, believe that valuable time and energy can be needlessly consumed in some of the group activities currently being advocated.

Although the lecture method is no panacea, it can represent an opportunity to promote a serious undertaking of learning, increase respect for the subject discipline and its teacher, and enrich the social-studies curriculum to a degree not fully enough appreciated by many educators.

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Does It Increase Reading and Spelling Ability?

The Value of Supplementary Phonics Instruction

FREDERICK W. IBELING

In The Elementary School Journal

IN modern reading programs, phonics instruction begins early in the readiness program and continues as an important part of the word-recognition program in the primary and middle grades. Despite the attention devoted to phonics, some teachers and administrators believe that basal reading programs do not give enough instruction and practice in sounding out words. Consequently, phonics workbooks and other materials are often used to supplement the basal reader program.

The value of supplementary instruction in phonics has previously been assessed by two studies. Karlin V. Russell reported startling gains in spelling ability among fourth-, fifth-, and sixth-graders who were given a series of 30 lessons on word-attack, which included practice in sounding out words. Ralph Bedell and Eloise Nelson reported no significant results, possibly because their study lasted only 15 days.

The research reported in this article was carried out in a consolidated school district in a suburban community, Wayzata, west of Minneapolis. About 600 pupils in grades 2, 4, and 6 participated in the study, representing various socio-economic levels with the majority coming from middle-class and upper-class families.

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A well-known basal reading series had been in use in the district for several years. The teachers used the spelling series they preferred.

At the beginning of the year, pupils were assigned to classes by strictly random methods. For this study, about a third of the classes at each grade level were randomly assigned to the experimental group, remaining classes being the control group.

In the experimental group, additional phonics instruction was given. For this instruction, the teachers used standard phonics workbooks.

In the control group, the usual program of reading and spelling was carried out, the only restriction being that phonics workbooks were not used. Supervisors helped both groups make good use of materials used. In the experimental group, teachers were told to fit the phonics instruction into the time they had alloted to reading in their daily program. The total amount of time spent on reading and spelling was about the same for both groups.

In October, at the beginning of the experiment, and again in May, at the end of the experiment, standardized tests of reading ability, visual analysis, and phonics knowledge were given to both groups. Results were compared and evaluated. Without detailing the technical processes involved in evaluation, the experiment appeared to reveal the information below. Although the terms *phonetic* and *phonics* are technically not synonymous, they will be used interchangeably here.

RESULTS OF STUDY

At all three grade levels, the experimental or phonics group had a higher mean score than the control group on the final administration of the Bond-Clymer-Hoyt tests of visual analysis and phonetic knowledge.

However, on the final tests of reading and spelling ability, there was no consistent advantage for either the experimental or the control group. Three of the six comparisons of mean scores on final tests in reading vocabulary and reading comprehension favored the experimental group, and three favored the control group.

On the spelling tests, the experimental group had a higher mean score on final tests at the sixth-grade level, while the control group had a higher mean score on final tests at the second- and fourth-grade level.

Results differed from class to class within the experimental and the control groups. Some classes using the phonics books showed favorable gains in reading and spelling; other classes that did not use these workbooks also showed impressive gains.

Considering only the results of the tests of reading vocabulary, reading comprehension, and spelling ability at the second-, fourth-, and sixth-grade levels, we find one very significant difference favoring the experimental group and one moderately significant difference favoring the control group.

Two classes with unusually high mean scores on the final tests were eliminated from the control group at an earlier stage of the analysis to improve the homogeneity of the group. If the scores of these two classes had been included, they might have produced some differences favoring the control group.

Teachers who use phonics workbooks sometimes report that pupils with average or above-average intelligence seem to learn phonics skills from the activities in the basic reading series but that pupils with less-than-average intelligence need more direct instruction and practice in phonics before they can use these skills in reading.

To determine whether supplementary phonics instruction was most valuable for pupils of less-than-average ability, the test results were analyzed separately for pupils with high and low mental ability.

The hypothesis tested was that there was no interaction between high and low mental ability and the two methods of instruction. The full hypothesis was accepted in all comparisons except one, the spelling test in sixth grade. Low-ability pupils in the sixth-grade control group had unusually low scores on both the initial and final tests in spelling, but inspection of individual scores cast doubt on the validity of the test results.

LIMITATIONS OF STUDY

The findings of the study are subject to several limitations, which must be considered:

Generalizations are applicable only where conditions are comparable. The pupils in the sample were above average in mental ability and socio-economic level. The faculty was above average in professional preparation as well as experience.

Although strictly random methods were used in assigning classes to groups and in assigning pupils to classes, there were still differences between the groups in mental ability and achievement. These initial differences may have affected results of the experiment.

The study covered only a seven-month period. Results might have been different if the period had been longer.

Despite the limitations, the results suggest the following conclusions:

Supplementary phonics instruction with workbooks significantly increased the visual analysis skills and phonics knowledge of second-graders. At the fourth-grade and the sixth-grade levels, the increase in visual analysis skills and phonics knowledge was not nearly so marked. Supplementary phonics instruction with workbooks significantly increased the spelling ability of second-graders. At the fourth-grade and the sixth-grade levels, no marked effect on spelling was noted.

Supplementary instruction with phonics workbooks did not increase reading vocabulary or reading comprehension significantly at any grade level. •

Phonetically Close to Correct

The Mediterranean and the Red Sea are joined by the Sewage Canal.—From *Scottish Educational Journal.*

To collect fumes of sulphur, hold a deacon over a flame in a test tube.—From *NEA Journal.*

Rats carry blue bonnet plague.—From *West Virginia School Journal.*

Cymbals—something you put on your finger when you sew.—From *The Christian Science Monitor.*

Improving the Science Program

GLENN O. BLOUGH

In Educational Leadership

Glenn O. Blough is Professor of Education, University of Maryland, College Park. Reported from Educational Leadership, *XIX (January 1962), 220–23, 276.*

WHEN one discipline of the curriculum is singled out for special attention and emphasis by way of added financial aid, more time allotment, and intensive considerations in many other ways, there is every reason to expect change for the better. In the immediate past years, science has been receiving just such a lion's share. There has been an urgency attached to science teaching that overshadows most, if not all, other areas of the curriculum at all levels. And there has been some progress. But on the other hand:

There are still more teachers at the elementary level who save their science teaching until the last (which means that they do little and do it poorly) than there are those who do such teaching willingly and well.

There are still more schools that do not have a prescribed course of study in elementary science than there are that do. Many schools still leave their teachers free to select content and activities within such a broad framework that it provides insufficient guidance for their inadequately prepared teachers.

There are still comparatively few schools that have a K-12 program in science worthy of that designation.

There are still far too many college freshmen, prospective teachers in the elementary schools, who ask of their advisors, "What's the minimum amount of science that I can get by with?"

There are still far too many high-school graduates who take only general science and biology and are never exposed to physics and chemistry.

There is too much poor science teaching at every level of our school system.

Yet progress comes through an analysis of needs and devising a program for meeting them, and not through dwelling on the faults. It is appropriate to take inventory to discover our needs and concentrate on plans to meet them. The following are some of the needs that seem paramount to many who are concerned with improving the science program at all levels.

COMPLETE PROGRAM

First, there is a real need for a K-12 or 14-year science program.

There are comparatively few places where such a program actually exists—where what happens in the junior-high school depends on what has happened in K-6, where the senior-high-school curriculum is altered in light of what has come before, where there have been assessing, planning, and teaching that take every level into account in relation to a total sequence.

Certainly, it takes time to plan and put such a program into effect. But there is a real question as to whether we have as much time as we appear to be taking. Here there is need for intelligent leadership that can utilize talents and backgrounds at all levels and give them purposeful direction.

BETTER UNDERSTANDING

Second, there is considerable evidence to indicate that we need a better understanding of what science really is—or is not—at various levels. It is not just a collection of facts about the moon and magnets but it does involve information. It involves learning facts that can be used to formulate a meaningful generalization that can ultimately be used in interpreting the environment. Perhaps it is time to stop apologizing for requiring the learner to acquire the facts.

Science is a method of discovery—it is a creative intellectual activity—it is learning how to find the answers—it is an attitude—and it is the body of organized subject matter that is the result of this intellectual activity. Understanding this is the first step toward achieving a real science program. It must be understood by the administrator, the supervisor, and the teacher, for it influences every molecule of the science program. This understanding of the true nature of science is urgent at every level of the curriculum.

OUTCOMES EXPECTED

There is also a great need for a thorough understanding of what the study of science is expected to do for the learners. Although there is growth in this area, there is still much aimless teaching. Unless an activity actually contributes toward the attainment of one or more of the objectives for science teaching, it is a waste of time. It may even be worse for there are many children who develop a negative attitude toward both work and science because of inappropriate activities and busy work.

Science teaching at every level intends to bring about certain changes in those studying science. These recommended behavioral changes, which have been put forth in print in countless yearbooks, manuals, texts, and periodicals, include: growth in ability to identify and solve problems in a scientific manner so that the result may be relied on; growth in understanding and use of a scientific attitude (don't jump to conclusions, do withhold judgment, evaluate evidence, be open-minded, etc.); growth in learning facts and associating them to see relationships to understand science principles and generalizations useful in interpreting the scientific world; and growth in interest and appreciation for the physical and natural world.

These are considered generally to be the urgent outcomes, although there are others desired.

These outcomes are not automatically achieved just because they are required reading. And they are not instinctive. They must be understood by curriculum makers, supervisors, principals, and above all by teachers in the classroom—and they must become urgent. Perhaps the greatest growth ever made in improving effectiveness of science teaching will come about when we concentrate on really understanding our objectives and bending our full efforts to achieve them. This need is universal from K through 12, existing as much at one level as another.

INTELLIGENT LEADERSHIP

There is also a great need for intelligent leadership in program planning and curriculum making. There is little sound curriculum making accomplished through pooling inexperience and exchanging lack of knowledge, especially if leadership is equally inadequate.

Whenever possible, where there is no one locally to lead in science-curriculum making, science specialists can be imported to exercise leadership to guide teachers and others in curriculum construction. This does not imply curriculum construction cannot be done locally. It can, in situations where there is talent for it and leaders with background and experience to direct the project.

IMPROVED TEACHING

There is a great need for improving what goes on in the classrooms to achieve the objectives outlined for science teaching. Here again leadership is important. A supervisor who cannot recognize good science teaching when he sees it, and who has even less than a desirable general education background in science, is hardly in a position to help a teacher who needs assistance in this area.

There is much good science teaching today; more than there was even five years ago. But even yet there is not enough. A year set aside for concentration on what constitutes good classroom teaching and how to bring it about would be a year well spent. Perhaps it is over-simplification but it is probably true that there is nothing wrong with science in our schools today that some excellent teaching will not cure. We probably write and talk a better program than we teach.

And in this connection, there is need at every level for better informed teachers. A basic background that makes sensible leadership possible is necessary for success in teaching. There is no adequate substitute for a knowledge of science if the teacher expects success in teaching at any level of instruction. •

Our Land-Grant Colleges

In The Idea of a Land-Grant College

Reported from The Idea of a Land-Grant College, *a bulletin published by the American Association of Land-Grant Colleges and State Universities (1961), 1–4.*

A SCANT century ago, the opportunity for higher education in this country was far more often than not restricted to those privileged by birth, by social status, and by wealth. For these, college education was mainly based on classical British and continental models. It was intended to fit students principally for the learned professions as then defined.

Today the old exclusiveness is gone. Higher education has become both more widely practical and more widely available. No longer the privilege of the few, it is an opportunity open to all who can benefit from it and have the will to meet its demands. This educational revolution was brought about in large measure by a new system of public higher education—by new institutions known as land-grant colleges and universities.

The pioneers of popular higher education knew well what the nation needed. They opposed "closed-door" education. They were equally dissatisfied with traditional education that would do little to fit its beneficiaries to perform the kind of service demanded by a changed and demanding American society.

These twin protests explained why a bold new concept was needed.

But how could it be managed? The nation at mid-century was still in the process of settling the frontier. The vast region between the Missouri and the Pacific slopes was largely unoccupied. The states and territories, still on the threshold of an era of agrarian and industrial development, were short of resources to create their own systems of higher education.

The nation as a whole, however, did have a fabulous resource of potential value, its public lands. Put part of that wealth to the service of education, the reformers argued, and learning could be brought to the "industrial classes," by which they meant nearly everybody who worked for a living.

Their dream envisioned a grant of federal land to each state, 30,000 acres for each member of Congress from the state. This land was to be sold—the going price then was about $1.25 an acre—with the income used to endow and support at least one college in each state.

The idea attracted many supporters, the most active being Jonathan B. Turner of Illinois and

Justin S. Morrill of Vermont. Morrill, who served nearly 50 years in Congress, led the fight for the necessary federal legislation. A land-grant college bill was passed in 1859, only to be put aside by President Buchanan's misgivings about its cost and constitutionality.

A second measure, also introduced by Morrill, finally was signed into law by President Lincoln on July 2, 1862, more than five years after the struggle for its adoption had begun. Thus, a sizable part of the nation's natural bounty was allotted to establish and maintain colleges "to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life."

The land-grant colleges became far different from their predecessors. They placed great emphasis on professional or specialized education, seeking to meet the needs of a people just learning how to apply the discoveries of science and advancing technology to daily life.

This practical education, indeed, was the "leading object" set forth in the Morrill Act. To achieve a balance between old and new, there was specific provision for the teaching of "other scientific and classical studies." Thus the values in traditional, classical education were to be combined with a curriculum better suited to meet the needs of a changing society.

By the turn of the century, the states had recognized their obligation to help support the colleges. Today federal funds are a minor part of the income of most land-grant colleges and universities.

As the land-grant institutions observe their 100th anniversary, they number less than 4 percent of the nation's colleges. Yet they enrol about 20 percent of the nation's undergraduate students and grant nearly 40 percent of all doctoral degrees in every field of study.

WHAT SETS THEM APART?

They conceive their role to be tri-part: conserving, advancing, and transmitting knowledge. In this, of course, they are no different from other colleges, public or private. What sets them apart is the way the three distinct methods of serving their basic aims are woven together.

First, and most familiar, is the wide variety of graduate and undergraduate curriculums. Over the years, the colleges have responded to new needs by expanding their offerings while continually insisting on high standards. Thus thousands of deserving and qualified students have been given the opportunity to prepare for useful lives of service in the newest as well as the oldest fields of study. The nation has benefited immensely in peace and war from the colleges' systematized instruction in military science. These institutions have been the backbone of the Reserve Officer Corps with its ready supply of trained leaders for the armed services.

To teaching has been added the important concept of basic and applied research as an integral part of a university's work. The work of the land-grant colleges has made life in America as well as in all nations richer, healthier, and happier. Among the results of research have been the perfecting of new crops, the first cyclotron, the discovery of streptomycin, and countless other significant advances in human knowledge.

Finally, and perhaps most distinctive, is extension work. This embraces *cooperative* extension in agriculture and home economics in association with the United States Department of Agriculture, and *general* extension activities—adult-education courses, radio and television programs, conferences, special institutes—which disseminate knowledge beyond the campus to the entire population.

In these varied ways, the land-grant colleges and universities strive to advance the noble idea that inspired their founders—that practical and liberal education shall embrace all knowledge in service to all people.

One hundred years after the federal government joined hands with the states to establish a new form of higher education, the land-grant college idea has become a world-wide pattern. Numerous countries have copied the American design of "democracy's colleges" to meet the new needs of their lands and times. •

THE greatest contribution of the land-grant institutions to teacher education—the education of teachers of agriculture, home economics, and trade and industrial education —today stands in partial eclipse. Yet this is, perhaps, the finest story the land-grant colleges will contribute to American education . . . Although the very diversity of land-grant universities makes it impossible to draw blanket conclusions, and although the commitment of those 66 land-grant institutions who engage in teacher education is probably as great as that in any other 66 institutions selected at random, teacher education in the land-grant universities can be described as one of fairly good-natured compliance much more than one of resolute pursuit. It is not that teacher education is treated in niggardly fashion or is unwelcome or even disregarded. It is that it leads a sort of war-horse existence, counted on to pull a big part of the load but seldom entered in the big races . . . (Would that) just 10 universities invest in the search for better education one-half the money and energy they invest in the search for better pigs and cows.—*Lawrence D. Haskew.*

★ With Education in Washington ★

THE EDUCATION DIGEST WASHINGTON BUREAU

The Bailey Bill.—At the curve of the U-shaped dais in the hearing room of the House Education and Labor Committee sat Reps. Cleveland M. Bailey (D-W.Va.) and Peter Freylinghuysen, Jr. (R-N.J.), chairman and ranking Republican member, respectively, of the Subcommittee on General Education. Reporters lounged along the sides of the U in the leather swivel chairs labeled for the 30 members of the Committee. Television cameras and tape recorders crowded the open end of the U, blocking the view of various lobbyists and a few stray citizens who watched the impressive spectacle from the seats reserved for the public at every open Congressional hearing. The room was filled, the television lights blinding, there was ample hot air for the trial balloon, but it never left the ground.

Rep. Bailey was there to announce his intention of holding public hearings on his proposed "new approach" to federal aid. Rep. Freylinghuysen was there to symbolize Mr. Bailey's hopes for bipartisan support. Dr. Edgar Fuller was there to assert the endorsement of the National Council of Chief State School Officers. George J. Hecht, a New York publisher and publicist, was there to announce the formation of the usual committee of prominent laymen to push "the Bailey bill." But no Bailey bill was dropped into the legislative hopper, and when the press conference was over it was quite unlikely that such a measure would even be drafted.

"This proposal puts the so-called religious issue back at the state level where it properly belongs," Mr. Bailey insisted. "Whether public funds should be used to aid private schools is a matter of educational policy within the limitations of the Constitution that, by long tradition, is the province of the states." He proposed, therefore, to grant aid funds to the states to do with as they each saw fit, aiding private schools if they chose to do so. Mr. Freylinghuysen politely but definitely disagreed with the assumption that Congress would pass this hot potato to state legislatures.

Mr. Bailey further proposed that $50 million be reserved for special projects in the "central cities"—such as Wheeling and Weirton, W. Va. (He faces a difficult election this fall because the boundaries of his constituency have been redrawn.) When a reporter pointed out that he himself had eliminated this very provision from the Administration's bill last year, he had no very convincing answer. For his part, Mr. Freylinghuysen preferred to see federal aid limited to needy school districts, the traditional Republican position. He admitted under questioning that the bill would have to have "a more conservative flavor" to earn his support.

When the vainglory and self-deception came to an embarrassed end, reporters went down the hall to see Rep. Adam Clayton Powell (D-N.Y.), chairman of the House Education and Labor Committee. As expected, he firmly dissociated himself from the entire affair. So did Rep. Frank Thompson, Jr. (D-N.J.), sponsor of the Kennedy Administration's education bill last year. That seemed to be that.

Pro-and-Con.—Even its detractors admit that Rep. Bailey's proposal has served to keep federal aid in the news since he first announced it at the end of the previous Congressional session. There is little likelihood that the topic will be dropped, despite the apathy accorded the brave Bailey attempt. In 1963, with a new House of Representatives—and a new HEW Secretary—the Kennedy Administration will try again.

To fuel public discussion of the issue of federal aid, Sen. Wayne Morse (D-Ore.) had the Library of Congress prepare a collection of pro-and-con excerpts from Congressional testimony and other sources, as well as a comprehensive bibliography. It does not, however, treat the questions of aid to segregated or private schools. Copies of *Proposed Federal Aid to Education* may be secured without charge on request to Senator Morse.

"Standing to Sue."—As a further contribution to the continuing debate on federal aid, Sen. Morse is sending up a trial balloon of his own this month. In a copyrighted article in the current issue of *Overview* magazine, he proposes a novel solution to the deadlock over public aid to private schools, the major barrier to enactment of a general aid bill.

Once dean of the University of Oregon Law School, Sen. Morse is conversant with Constitutional questions. He explains that only school lunch and school bus aid have ever been considered by the Supreme Court; the Constitutional validity of loans vs. grants or aid to the colleges vs. aid to the lower schools has never come before the Court for decision.

The reason is that lawyers have never found a way to get a case into court to test, for example, college housing loans or grants of surplus property to private elementary schools. Under present law, no potential litigant has "standing to sue," an anomaly Sen. Morse proposes to end.

His remedy is a provision to be added to any federal-aid bill that Congress might enact, specifically granting taxpayers the right to sue for a Constitutional ruling by the highest court in the land. This provision would eliminate the present political deadlock, Sen. Morse contends, since it would permit a quick and definitive decision. If Congress votes unwisely, in the light of the Constitution, its legislation would at once be overruled. With the vexing Constitional questions settled, the nation could then get on with the job of fully financing its educational system.

Federal Funds.—In the last quarter-century, the U.S. Office of Education has published 15 editions of its report on *Federal Funds for Education*. (Copies may be obtained for $1 from the Superintendent of Documents, Government Printing Office, Washington 25, D.C.) The current edition, which covers the 1959-60 school year, shows a total of $2.4 *billion* spent by the federal government for educational activities of one sort or another, an immense total that includes everything from ROTC to cancer research to the Graduate School of the U.S. Department of Agriculture.

Every few years a Congressman runs across the USOE report and can't believe his eyes. The late Rep. Ralph W. Gwinn (R-N.Y.) used its figures to bolster his belief that the federal interest in education was overfinanced and should be drastically reduced. When the Republicans last controlled Congress, he headed an investigation that produced an official report saying as much.

Now, another across-the-board investigation is about to start of all federal activities remotely classified as educational. Rep. Edith Green (D-Ore.), chairman of the Special Education Sub-committee of the House Education and Labor Committee, is directing the study.

Mrs. Green taught in the public schools of Salem, Ore., for 11 years and served on the Oregon PTA Board for seven years. She is not alarmed at the large expenditures. She is concerned, rather, that each of the 19 standing House Committees at times handles legislation pertaining in some respect to education. She has observed also that only one-third of the bills affecting education are currently referred for the consideration of the House Education and Labor Committee.

Population Picture. – America's population growth as reflected in the 1960 and previous Censuses of Population is presented in simple form for classroom use in a new publication of the Bureau of the Census, *Our Growing Population*. Copies of this 12-page booklet, which is amply illustrated, have been sent by the Director of the Bureau of the Census to state curriculum directors with a note suggesting its suitability as supplementary reading matter for social-studies classes.

The booklet was written with the school child in mind and differs from most Census Bureau publications in its simplicity.

Big-City Teachers.—The National Education Association has organized a special project, directly responsible to Executive Secretary William G. Carr, to emphasize its concern with the professional and economic problems of teachers in the big cities. Some 27 percent of the profession works in cities of 100,000 population or more, where

22 percent of the NEA membership is found.

Dr. John K. Norton, who was the first NEA research director (1922-1930) and who retired a few years ago as head of the department of educational administration at Teachers College, Columbia University, will head the project. He has been studying the problem of big-city teachers and prepared a proposed program which was adopted by the NEA board at Atlantic City last month.

"The European immigrant came to the United States bringing with him high appreciation of the value and rewards of education," Dr. Norton says. "One of the reasons he came was to secure for his children the opportunity for education and gain in social status which rigidities in his homeland denied and which America offered. The immigrant from Europe often brought skills which were readily marketable under conditions then existing. His children found opportunities for part-time employment during their school and full-time employment after leaving school."

In contrast, the migrants to the big cities today, Dr. Norton points out, often come from rural slum areas in the United States where they have been denied adequate schooling. Many of them, even if they manage somehow to obtain schooling and occupational training, are discriminated against when it comes to finding employment. Some are members of broken families which offer little encouragement to children to stay in school or to profit from schooling, he observes.

In the last five years, 26 cities have acquired paid, full-time NEA executive secretaries, and there are also eight roving NEA field agents to work on big-city problems. Their job is to help city and state associations and to encourage teachers to get together in fewer organizations. Dr. Carr points out that NEA's big-city project was formulated long before the collective bargaining election won recently in New York City by the United Federation of Teachers, affiliate of the American Federation of Teachers, AFL-CIO. "I don't know when, if ever, the teachers of New York will decide to make a shift in their arrangements," he told us. "Our special project, however, will have a bearing on developments in other cities."

Dr. Carr wryly emphasizes the NEA's open-door policy toward all professional organizations. In its electoral campaign against the Teachers Bargaining Organization, which was strongly backed by the NEA, the union drew freely on NEA statistics. "After they won the election," Dr. Carr recalls, "the UFT called us up and asked for materials to use in their presentation at the New York City budget hearings. We sent them the publications. It cost the UFT $11 for data that NEA spent $35,000 to collect and analyze, but that's all right with us—we're a professional organization." •

• Educational News •

Changes in Superintendencies:

Lawrence, Kan.: **Carl S. Knox,** superintendent at Olathe, has been named successor to **W. D. Wolfe** on his retirement in July.

New Haven, Conn.: **Laurence G. Paquin,** superintendent at Glastonbury, Conn., will succeed **Justin L. O'Brien** on his retirement in June.

Duluth, Minn.: **Alvin T. Stolen** has announced his retirement on July 31.

College Presidents:

Western State College of Colorado, Gunnison: **Grant Venn** has resigned as president.

Grand Valley State College, Grand Rapids, Mich.: **James H. Zumberge,** professor of geology at the University of Michigan, Ann Arbor, has been named first president of this new four-year state college, to open in 1963.

Teacher-Training Institutions:

The Ohio State University, Columbus: **David L. Clark,** director of the Cooperative Research Branch, U.S. Office of Education, has been named associate dean in the college of education.

Lehigh University, Bethlehem, Pa.: **John S. Cartwright,** superintendent at Allentown, Pa., has been appointed professor of education, effective in September.

St. John's University, Jamaica, N.Y.: **Robert J. Daly,** formerly superintendent, Solvay, N.Y., is now professor of curriculum development.

Other Changes and Appointments:

Harold V. Webb, formerly acting executive director of the National School Boards Association, is now executive director, succeeding **W. A. Shannon,** resigned.

Recent Deaths:

Ambrose Caliver, chief of the adult education section, U.S. Office of Education and president of the Adult Education Association, at the age of 67.

Public Records by Race?

The question whether public records should be kept by race, one of the controversial questions accompanying school desegregation, is covered in a special report in the February issue of *Southern School News.*

Those who oppose racial identification in public records believe it is an invitation to discrimination. On the other side, those who approve racial identification, argue that racial statistics provide information essential to the solution of problems involving race. Some say that the absence of racial statistics presents opportunities for discrimination with reduced risk of detection.

The *Southern School News* points out that separate statistical information for Negroes and whites continues to be the general practice in the 17 southern and border states. Three states—Missouri, Oklahoma, and West Virginia—have stopped keeping school records by race since the U.S. Supreme Court's desegregation ruling in 1954. Some of the states record separate figures for white and Negro students but they are not announced to the public and are made available only for special research.

Florida has begun a movement to drop racial distinctions wherever possible. Recently, school officials here decided to stop keeping separate records for white and Negro high-school senior's scores on statewide tests that determine college eligibility.

School statistics by race for the nation also are being discontinued. This has created a problem for the U.S. Commission on Civil Rights. In its 1961 report, the Commission repeated a previously made proposal that the U.S. Office of Education and the Bureau of Census conduct an annual school census that would show "the number and race of all students enrolled in all public institutions in the United States."

It states that "a comprehensive nationwide study of equal protection of the laws in public education requires complete and accurate factual information as to the school attended by all major ethnic groups . . . An annual headcount . . . that would not be part of the permanent record of individual students would provide the data needed for evaluation of equal protection in educational institutions without exposing students to the risk of discrimination."

The Commission emphasized that "this recommendation does not contemplate the establishment of school records by race or ethnic classification. The trend toward the elimination of such identification on student records should, in fact, be accelerated."

Universities Cooperate

ANOTHER in the series of higher-education cooperative ventures is the new Mid-America State Universities Association, formed by presidents and deans of 10 state universities in six states—Missouri, Kansas, Nebraska, Iowa, Oklahoma, and Colorado.

The new association is planning conferences to consider the pooling of facilities, exchanging students in various fields, strengthening higher education in the region, and reducing costs. Elmer Ellis, president of the University of Missouri, is chairman of the executive committee.

English Project

To improve the teaching of English, the U.S. Office of Education has announced that it is establishing a special project, directly under Commissioner McMurrin, to consider the entire field, from the teaching of reading in elementary schools to composition in high schools.

In order to study teaching methods and develop textbooks and other teaching materials, it is planned to establish three curriculum centers, staffed by personnel from universities and colleges and state education agencies. Sites of these centers have not yet been selected.

Congressional approval will be sought for teacher-training institutes, comparable to those which have been established for guidance and foreign languages under the NDEA.

French Comics

IN a new, and believed unprecedented, method of utilizing the resources of a daily newspaper with the activities of the school system, *The Ann Arbor* (Mich.) *News* in February started publication of a comic strip in French.

The comic strip is designed to promote additional interest in the French language. French is taught in the Ann Arbor public school system starting in the fourth grade.

The comic strip is drawn by a local artist and mother, Mrs. Mary E. Kincaid, and the situations are based on the story of *Les Miserables*.

Automation Implications

SCHOOLS and other educational institutions will have to carry a heavier responsibility if automation is to bring a higher standard of living instead of more unemployment, according to Luther H. Evans, director of the NEA's Project on the Educational Implications of Automation.

Dr. Evans summarized the thinking of 60 leaders in education, industry, science, labor, research, and the government who met at a symposium held in Washington in July under the auspices of the NEA Automation Project.

Dr. Evans stated that "one education" isn't going to be sufficient to carry people through the number of jobs they will be holding in one lifetime. "Education," he predicted, "is going to be a 'cradle to grave' affair. It is up to the schools to lay the basis for a wide range of learning and to create a taste for learning. It will be up to industry to finance on-the-job training."

DATES OF THE MONTH:

Mar. 4-7, Association for Higher Education, Chicago, Ill.

Mar. 4-8, Association for Supervision and Curriculum Development, Las Vegas, Nev.

Mar. 9-14, National Science Teachers Association, San Francisco, Calif.

Mar. 24-28, Department of Elementary School Principals, NEA, Detroit, Mich.

Mar. 25-30, Department of Audio-Visual Instruction, NEA, Kansas City, Mo.

DATES OF THE COMING MONTHS:

April 6-10, American Association for Health, Physical Education, and Recreation, Cincinnati, Ohio.

April 8-14, National Library Week.

April 12-14, National School Boards Association, St. Louis, Mo.

April 15-18, National Council of Teachers of Mathematics, San Francisco, Calif.

April 16-19, American Industrial Arts Association, Pittsburgh, Pa.

April 16-19, American Personnel and Guidance Association, Chicago, Ill.

April 22-27, Association for Childhood Education International, Indianapolis, Ind.

April 24-27, National Catholic Educational Association, Detroit, Mich.

April 24-28, Council for Exceptional Children, Columbus, Ohio.

May 20-23, National Congress of Parents and Teachers, Portland, Ore.

July 1-6, National Education Association, Denver, Colo.

•

Social Aspects of Education: A Casebook. Edited by Edward T. Ladd and William C. Sayres. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1962. Pp. xi + 388. $5.75.

In a community where the mayor appoints individuals to the board of education, a high-school teacher wins election as mayor, defeating a member of the board of education for the office. The board suspends the mayor-teacher from his teaching duties, holding that there is a conflict of interests with one man holding both posts. Protesting students leave their classroom, the mayor sends them back; individual citizens, community groups, local factions, and officials at the state level all become involved in the situation.

The above is only one of 22 actual events reported in this book.

While not all so intricate and unusual as the teacher-mayor complex, the case studies reported tell a story of the cultural and social forces in this country as they act on students, teachers, administrators, and citizens of a community. In all, the book is a panorama of American education in action. Individual students, teachers—the entire casts of the various and differing American communities—come alive and play their roles as the social forces at work today are portrayed with the school as the setting.

The case histories, reported in a realistic manner, range from the sensational to the prosaic. There are accounts of events following desegregation of a high school, of controversies about curriculum change, and several of conflicts between local groups and state departments of education concerned with improving standards.

There is ample demographic and statistical data so that the book should be of value as a text, and the detached viewpoint of the reporting does not conceal the drama inherent in the events. The book should find a readership outside the classrooms.

Modern Education for the Junior High School Years. William Van Til, Gordon F. Vars, and John H. Lounsbury. Indianapolis: The Bobbs-Merrill Co., Inc., 1961. Pp. 527.

This is a comprehensive up-to-date text dealing with education for the junior-high-school years. Thorough coverage is given to history and development, psychological and philosophical foundations, teaching methodology (with a chapter on extracurricular activities), guidance, etc.

There is a detailed description of content and method of teaching in the core curriculum and separate sections dealing with science, mathematics, foreign languages, physical education, industrial arts, the fine arts, music, and homemaking. There are extensive suggestions for improving teaching techniques and for gathering, organizing, and using resource materials. There is commentary on recent developments including educational technology, the junior-high school's role in teaching about values amid social controversies of our time (book and movie censorship, school integration, United Nations membership, etc.), and the interest and emphasis on education.

Letters to My Teacher. Dagobert D. Runes. New York: Philosophical Library, Inc., 1961. Pp. 105. $2.75.

This is a collection of essays sharply critical of schools and educational practices for failing to improve relations among human beings. Internationally, historically, and educationally comprehensive in scope, the author aims point blank at social values and the influence (or lack of influence) that education works on man's relationship to man.

"What we see in the wide realm of the Soviet Empire is only a magnification of Caesarean pedagogy: training in the subjects that can be used most efficiently in the obtaining of Caesarean goals, with major emphasis on military science and economic domination."

From comments as above to testing programs in American schools, professional and school athletics, and racial issues the pungent content ranges swiftly over the social landscape.

Graduate Education: A Critique and a Program. Oliver C. Carmichael. New York: Harper & Brothers, 1961. Pp. ix + 213. $4.50.

The author spent two years visiting 40 universities as part of a study of problems confronting American graduate education in this country. He says:

". . . I have been forced to the conclusion . . . that critical problems of graduate education can never be solved without reorganization. I have found, therefore, no alternative to making a specific recommendation that graduate schools be given greater autonomy, greater responsibility, and greater authority. Under the present organization, basic reforms are not possible."

The book is in two parts: Part one is "A Critique;" and part two is "A Program." Not a historical nor a statistical report, the book is a frank discussion of administrative and organizational weaknesses of the graduate education process. Reminding the reader repeatedly of the increasing enrolment and increasing importance of education at the graduate level, Carmichael makes recommendations and suggestions for reorganization of graduate education programs.

Formerly president of the Carnegie Foundation for the Advancement of Teaching, Oliver C. Carmichael is now a consultant to the Ford Foundation for the Advancement of Education.

Curriculum Planning for the Gifted. Edited by Louis A. Fliegler. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1961. Pp. xii + 414. $9.00.

This book is designed for teachers, administrators, and curriculum specialists having responsibility for developing concepts and materials for the gifted child. It is intended, also, to serve as a basic text for curriculum planning courses at the post-service or in-service level.

The curriculum approach of the book is broad and stresses subject matter and skills. Areas included are social studies, mathematics, science, reading, creative writing, foreign languages, music, art, and dramatics. As stated in the preface, the primary purpose of the book is to "facilitate the integration of skills and content, thereby enriching the life of the gifted child."

Contributors to the book, in addition to the editor, include Alexander Capruso, W. E. Knuth, W. Lambert Brittain, H. Stewart Moredock, James P. Sofietti, Ruth Strang, Joseph Leese, Walter B. Barbe, Alfred Collette, Foster Grossnickle, Hedwig O. Pregler, John Burdick, and J. Stanley Marshall.

Values and Ideals of American Youth. Edited by Eli Ginzberg. New York: Columbia University Press, 1961. Pp. xii + 338. $6.00.

This book contains the final collection of papers from the Golden Anniversary White House Conference on Children and Youth.

The book deals with three major areas concerning American youth: "Development and Adaptability," "Problem Areas," and "Values in Transition."

Part One discusses the favorable and unfavorable conditions contributing to development of the individual, dealing with special problems of the older adolescent, changing sexual mores, increasing importance of higher education, etc.

Part Two examines the significance of the automobile; minority intergroup relations; youth and pornography; delinquency; and specific problems of migratory workers.

Part Three investigates modern standards and ideals of both children and adults and the lack of commitment to either by many people. One contributor contends that our values are intact and refutes the view that our society is characterized by an "unprecedented moral decline." Another writes, "The nondirected person caring little for the freedom to choose between being 'other' or 'inner' directed represents a threat to society that is reaching frightening proportions."

Eli Ginzberg, editor of this book, is director of the Conservation of Human Resources Project, and Professor of Economics at Columbia University.

OTHER MATERIALS RECEIVED:

ELEMENTARY

Pioneers of the Press; The First Newspapers in America. Gerard Previn Meyer. Chicago: Rand McNally & Company, 1961. Pp. 96. $2.95.

Flying Mary O'Connor; The Story of a Pioneer Stewardess. Mary O'Connor. Chicago: Rand McNally & Company, 1961. Pp. 144. $2.50.

Science, Grades K-6; No. 5. Weather. Curriculum Bulletin 2e, New York City Divisions of Curriculum Development and of Elementary Schools. 1961. Pp. 112. Available from New York City Publications Sales Office, 110 Livingston St., Brooklyn 1, N.Y. $.50.

Independent Activities for Creative Learning. Helen Fisher Darrow and R. Van Allen. New York: Bureau of Publications, Teachers College, Columbia University, 1961. Pp. ix + 110. $1.25. No. 21 in the Practical Suggestions for Teaching series.

Children's Books to Enrich the Social Studies for the Elementary Grades. Helen Huus. Washington, D.C.: National Council for the Social Studies, 1961. Pp. x + 196. $2.50 (paperbound).

A Son of Liberty. Alice Fleming. New York: St. Martin's Press, Inc., 1961. Pp. 184. $3.50. A story of the Battle of Bunker Hill.

I Want to Be a Scientist. Carla Greene. Chicago: Childrens Press, 1961. Pp. 28. $2.00.

Science Equipment and Materials for Elementary Schools. Albert Piltz. U.S. Office of Education Bulletin No. 28, 1961. Pp. vi + 66. Available from U.S. Government Printing Office, Washington, D.C. $.30.

Creative Dramatics. Washington, D.C.: Association for Childhood Education International, 1961. Pp. 48. $.75.

SECONDARY

Word Clues. Book I. Stanford E. Taylor, *et al.* Huntington, N.Y.: Educational Developmental Laboratories, 1961. First of a series of vocabulary development books programed for independent learning. Contains 30 lessons of 10 words each for Grade 9. $1.80.

Frontiers of Secondary Education. Edited by Paul M. Halverson. Syracuse, N.Y.: Syracuse University Press, 1961. Pp. v + 74. $1.75, paperbound.

Make the Team in Basketball. Clair Bee. New York: Grosset & Dunlap, 1961. Pp. 119.

Our World through the Ages. (Second Edition.) Nathaniel Platt and

Muriel Jean Drummond. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1961. Pp. xx + 732. $5.60.

Trailblazer of American Science; The Life of Joseph Henry. Sarah R. Riedman. Chicago: Rand McNally & Company, 1961. Pp. 224. $3.50.

Story of Our Land and People. (Revised Edition.) Glenn W. Moon and Don C. Cline. New York: Holt, Rinehart and Winston, Inc., 1961. Pp. viii + 760. $5.32.

Riders of the Wind. Rene Guillot. Chicago: Rand McNally & Company, 1961. Pp. 174. $3.50.

Story of America. (Revised Edition.) Ralph Volney Harlow and Herman M. Noyes. New York: Holt, Rinehart and Winston, Inc., 1961. Pp. x + 822. $5.60.

COLLEGE

Placement Services for Personnel in Higher Education. Lanora G. Lewis. U.S. Office of Education Bulletin OE-53013. Pp. v + 36. Available from U.S. Government Printing Office, Washington, D.C. $.30.

University Adult Education in the Arts; A Descriptive View of Programs. Freda H. Goldman. Chicago: Center for the Study of Liberal Education for Adults, 1961. Pp. vii + 72. $1.00.

Factors Related to College Attendance. Robert H. Beezer and Howard F. Hjelm. U.S. Office of Education Cooperative Research Monograph No. 8, OE-54023. Pp. vi + 42. Available from U.S. Government Printing Office, Washington, D.C. $.20.

GENERAL

A Treasury of Modern Asian Stories. Edited by Daniel L. Milton and William Clifford. **On the Nature of Man.** John Langdon-Davies. New York: The New American Library of World Literature, Inc., 1961. Pp. 237

AMERICAN HIGH SCHOOL ADMINISTRATION
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and 224. $.50 each. Two new original Mentor books, paperback.

The Education of Teachers: Certification. Washington, D.C.: The National Education Association, 1961. Pp. x + 367. $3.50. A report of the 1960 San Diego conference of the National Commission on Teacher Education and Professional Standards, NEA.

International Directory of Teachers' Associations. New York: Columbia University Press, 1961. Pp. 127. $3.50. A Unesco publication.

Keys to Quality. Lewis E. Harris and Clyde B. Moore. Evanston, Ill.: National School Boards Association, 1961. Pp. 48. $1.00. The fourteenth and final booklet in the "Quest for Quality" series, a joint project of the American Association of School Administrators and the National School Boards Association.

Economic Status of Teachers in 1960-61; Administrative Practices in Urban School Districts, 1958-59; The Pupil's Day in Court: Review of 1960; and **The Teacher's Day in Court: Review of 1960.** Washington, D.C.: National Education Association Research Division, 1961. Pp. 52, 73, 51, and 46, respectively. $.75 each. New NEA Research Report booklets.

Revenue Programs for the Public Schools in the United States, 1959-60; and **Current Expenditures Per Pupil in Public School Systems—Urban School Systems, 1958-59.** U.S. Office of Education. 1961. Pp. vii + 79 and v + 82. Available from U.S. Government Printing Office, Washington 25, D.C. $.55 and $.50, respectively.

The Federalist Papers. Alexander Hamilton, James Madison, and John Jay. New York: The New American Library of World Literature, Inc., 1961. Pp. 559. $.75, paperback. A new edition with introduction, table of contents, and index of ideas by Clinton Rossiter.

Historical Atlas of the World. Chicago: Rand McNally & Company, 1961. Pp. 40. $1.00.

Ex Litteris

(comments from our readers)

Dear Sir:

I have come across your magazine, THE EDUCATION DIGEST, and I read some of its articles. I found it to be an interesting and stimulating publication. I work as a teacher in a missionary school in Lebanon and I am partly responsible for some administrative work connected with promotion and grades. I feel your magazine will be of great help to me.

Joseph M. Mansour,
The National Evangelical Institute,
Sigon, Lebanon.

Dear Sir:

Grouping, ability grouping, classification of students seem to be a strong factor in our educational philosophy today. Here at San Leandro High we are trying to develop an academic program for the average or "M" student.

I noted in your September 1961 issue an article, "Grouping, What Have We Learned?" that made sense in the problem of grouping. However, our problem is to investigate further any work being done for the "M" student and then develop a program for our secondary students. We are investigating the Richmond Plan. Do you have any more information regarding this area?

I am impressed by your magazine, THE EDUCATION DIGEST, and hope you continue your good work.

Robert M. Lenz,
San Leandro High School,
San Leandro, Calif.

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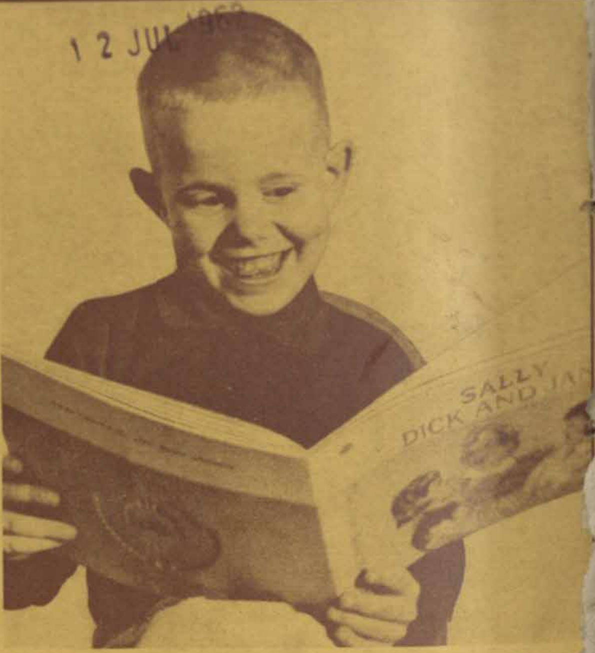

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Volume XXVII April 1962 Number 8

THE EDUCATION DIGEST

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MEMBER OF

EDUCATIONAL PRESS ASSOCIATION OF AMERICA

Editorial and Circulation Office: 416 Longshore Drive, Ann Arbor, Michigan.

Advertising Sales Offices:
Ann Arbor, Mich.—416 Longshore Drive, telephone NO 8-7205.
Chicago, Ill.—Didier & Broderick, Inc., 5809 Lincoln Ave., telephone LO 1-5284.
New York 17, N.Y.—Macintyre-Simpson & Woods, 101 Park Ave., telephone LE 2-0020.
Los Angeles 5, Calif.—The Jess M. Laughlin Company, 711 S. Vermont Ave., telephone DU 3-7697.

Published monthly, September through May, by Prakken Publications, Inc., 416 Longshore Drive, Ann Arbor, Michigan. The annual index is included in the May issue. The contents of THE EDUCATION DIGEST are listed in the **Education Index.**

Subscription Rates: $5.00 a year; 2 years, $9.00; 3 years, $12.00; foreign, $5.50 a year. Single copies, 60c.

Second-class mail privileges authorized at Ann Arbor, Michigan, and additional entry authorized at Oxford, Ind. Printed in the United States of America.

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THE EDUCATION DIGEST

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Volume XXVII APRIL 1962 Number 8

How To Deal with the Superpatriots

The Teachers Take a Birching

DONALD W. ROBINSON

In Phi Delta Kappan

Donald W. Robinson is Chairman, Department of Social Studies, Carlmont High School, Belmont, California. Reported from Phi Delta Kappan, *XLIII (February 1962), 182–188.*

THE Phoenix, Arizona, area, recently characterized in the *Washington Post* as "The Valley of Fear," is one stronghold of conservatism in this country. The area affords an example of extremist conservatives at loggerheads with the schools, but not a typical example.

Here the extremists are backstopped by a phalanx of highly respected hard-core Americans who publicly deplore the vigilante methods of heckling crowds but who, nonetheless, believe this country is going down the drain because of domination by liberals, and whose consistent antipathies include Harvard, the A.D.A., the income tax, Erich Fromm, and the United Nations.

In one case, among many that could be cited, an attorney, a member of a leading Phoenix law firm, led a successful fight for dismissal of a teacher who criticized the film "Operation Abolition" at a PTA meeting. The teacher also defended the American Civil Liberties Union, of which he was a member. The attorney, speaking of teachers, said, "A few of them are Communists, and a great many are sympathizers. It's not their fault. They are just the products of the thinking on which they were raised. That's what we've got to change. The liberals have captured the state university, all except Dean Shofstall, who sponsors 'Students United Against Communism.' "

The articulate, respectable conservatives in Phoenix, the pillars of society, some of whom are John Birch Society members and some not, sound eminently reasonable and ready to protect the civil liberties of all, as one listens to them one at a time. But they do not check the rabble-rousers. They do not use their considerable prestige to halt the pressures on teachers and school boards because they are in sympathy with the objectives of these pressures, even though they might personally flinch from using extremist tactics.

It is not easy to assess the effect the conservative crusade is having on Arizona teachers. Arizonians are tough. They don't scare easily and teacher morale has probably suffered less than it might have in a community farther removed from the old frontier. And perhaps Arizona teachers are a bit more conservative than others to begin with. But the number of teacher dismissals and forced resignations as a result of attacks on teachers highlight what is perhaps the most serious indictment of the literate conservative position, its deviousness in deliberately confusing anti-liberal and anti-Communist campaigns. In order to enhance the patriotic appeal, it plays up fear, and it associates liberal ideas with Communist threats when it does not seriously believe that connections exist.

IN CALIFORNIA

Four hundred miles west, in the Los Angeles area, the tone is somewhat different, not because the extremists' campaigns are less virulent, but because they lack the support they enjoy in Phoenix of a monopoly conservative press and a tradition of respectable conservatism. In the Los Angeles area, the school incidents seem to assume that bizarre coloration that has become associated with that part of the state. Some examples:

In Santa Barbara the Freeborn Club, admittedly a front for the John Birch Society, mailed an announcement titled "Will You Be Free To Celebrate Christmas in the Future?" to the eleventh- and twelfth-grade students of the San Marcos High School.

In the same city the American Opinion Library distributed conservative literature overprinted with telephone numbers of "The Voice of Freedom." Whoever called heard a recorded message opposing extension of teacher tenure and recommending a certain conservative local radio commentator.

A San Diego State College history professor stated in a letter to the *Los Angeles Times*, "I know one teacher who was reprimanded by her principal for stating in class that the USSR is larger in area than the United States; a parent had complained."

A Los Angeles grand jury issued a report questioning the objectivity and value of a mock UN Assembly conducted by seventh-grade students. The *Los Angeles Times* pointed out editorially, "For some reason, the original critics of the mock assembly did not bother to present their arguments to the school board. Their complaint—which may be entirely valid—was given instead to the grand jury. They went to the wrong place."

In California, where the anti-Communist clamor is so strong, it was inevitable that a demand should arise for the state-wide compulsory adoption of an approved outline for the teaching of the virtues of capitalism and the vices of communism. A 13-man commission is now wrestling with the problem.

As soon as it was announced that the state was officially interested in teaching about communism in the schools, the State Department of Education was deluged with letters, mostly prescriptive, and mostly critical of the laxity of the schools in their anti-Communist posture. One correspondent proposed that we forthwith cease all reference to the American Revolution, since immature students might associate the same virtuous qualities of the American Revolution with the Russian Revolution. Instead, he suggested, let us refer always to the War for American Independence.

There is no shortage of examples of similar nature where patrioteers have attempted by pressure tactics to influence the operation of the schools, including attacks on curriculum, subject-matter content, and literature. But an extensive listing deviates from the main issue, which is, what should we do?

WHO IS A PATRIOT?

The questions are: When do we ignore and when do we respond to accusations from the lunatic fringe? Where is the dividing line between active citizen participation in school affairs, which we encourage, and vigilante pressures or meddling, which we resent? How far should we go in acceding to community pressures to decide what constitutes proper pariotic procedures in the schools? Who is a patriot?

The answers are not simple, and in many important particulars they will vary from district to district. Since the democratic process requires that all views be stated and restated and restated, it might be appropriate here to recall a number of the caveats with which we are already familiar.

Schoolmen should retain a sobering awareness that they have not succeeded too well in their goal of education for responsible active citizenship. The leaders and the followers of extremist groups are, by and large, products of the public schools, products who were precocious in some of the less commendable qualities, exaggerating pride in selfexpression at the expense of intellectual effort. They are still shirking the intellectual job and deriving a vicarious sense of participation from their presence in the jeering section.

Schoolmen should learn to accept criticism and dissent, perhaps even personal attack, as evidence of a functioning democracy. Teachers should be able to absorb some criticism—even some sharp and unfair criticism—without crying "foul." When teachers too quickly admit to feeling pressured, they are confessing a lack of faith in their administrators, school boards, professional associations, and in the ultimate good sense of the American public. Any teacher fearful of having his teaching reviewed in the court of public opinion may be deficient in his faith in democracy—and that is the same charge he is leveling at the Birchers.

The muzzling of teachers must be prevented, but not by the muzzling of the patriotic groups. The name-calling campaigns must be countered, but not by name-calling. The emotionalized hate-fear attacks must be met, but not in kind.

The dedicated member of a liberal group, bristling with anger when it is labeled a Communist front, is sometimes the loudest in retorting with charges of fascism. We must be fearless in reply, but we must be precise and accurate. Otherwise, a basic philosophical struggle degenerates into a mudslinging contest.

We must no more judge conservatism by the extremists than we should judge liberalism by its crackpots. But we must meet school-community situations as they arise, and today they are frequently the result of John Birch Society types of activities.

THE PRESSURES

It is the situations created by extremists that place strains on community relations, on school effectiveness, and on democratic faith. For even when a teacher under attack receives the standard expressions of support from his superintendent and school board, he is still subject to inner pressures. This teacher becomes a victim of a war of nerves and is incapable of devoting full energy to teaching. He can never be sure when pressures on the superintendent may become too strong, or when the board will withdraw its support to mollify an important segment of the community. This teacher, if he has not attained tenure, cannot foretell when he might be told with regrets that he has become too controversial and his usefulness to the community has ended.

This has happened to a number of teachers and has been a genuine threat to many more. This is the pressure from the conservative organizations that causes concern.

Whenever the extremists launch an irresponsible attack, it should be met with the most responsible rebuttal that can be offered. If any teacher is unfairly dismissed, the responsibility rests squarely with the superintendent and the board. They were selected to meet pressures and to administer the schools fairly. If they fail in an important instance, and if the democratic process is healthy in the community, they will not be chosen for another term.

One specific case is pertinent here. In Fullerton, California, a counselor was subjected to a persistently abusive campaign of letters, phone calls, and demands for his dismissal, based on three charges: membership in the American Civil Liberties Union; former membership, while an undergraduate, in American Youth for Democracy, and permitting a controversial figure to address a meeting of the ACLU in his home.

The attack was so severe that it prompted a joint investigation by the California Teachers Association and the NEA's Commission for the Defense of Democracy through Education. The report of the joint commission applauded the Fullerton school board and administration for their continued support of this counselor in the face of repeated attacks. The report offered a clear set of recommendations to the board of trustees which might profitably be adopted elsewhere:

Adopt a clear-cut policy regarding academic freedom and rights of teachers.

Establish regular procedures for airing citizens' complaints.

Seek general understanding of the school's program and goals.

Take prompt action on all complaints, supporting the staff fully until facts are presented to justify withdrawal of support.

Intelligent administration of wise policies along these lines can reduce but cannot remove tensions. Tensions always accompany change, and today the tempo of change is accelerating.

The birth of the atomic age complicated our loyalties by making more imperative the relaxation of traditional concepts of national honor and survival in favor of a new commitment to human honor and survival.

The tragedy is that we learned to build the bomb before we learned to control our emotions. If we are to meet our challenges successfully—the Birchers, the Soviets, and the bomb—we must learn fast how to examine our own inner feelings and act confidently at a rational level, free of the compulsive fears, enervating guilt, and irrational hostility that permeate so much of human behavior. •

Freedom of Intelligence

• Our least favorite quote of the month, appearing in *Publishers' Weekly*, was from J. Evetts Haley, rancher, writer, and sometime teacher of Canyon, Tex., who is head of an organization known as "Texans for America," now engaged in censoring history books. "The stressing of both sides of a controversy," said Haley, "only confuses the young and encourages them to make snap judgments based on insufficient evidence. Until they are old enough to understand both sides of a question, they should be taught only the American side."—Cleveland Amory in *Saturday Review*.

• It is characteristic of our times that the modern educator with a conscience must give some of his time to meeting reactionary forces which would censor the free use of intelligence in the public schools.—William Van Til in *The Making of a Modern Educator*.

The Whole Child: A Fresh Look

Harold Taylor

In Saturday Review

Harold Taylor, formerly President of Sarah Lawrence College, now devotes his time to research and writing. Reported from Saturday Review, *LXIV (December 16, 1961), 42–43, 57–58.*

THE real quarrel between the conservatives and liberals in education is about the kind of society they wish to live in. Conservatives want more control over children and more stability in the society; liberals want more freedom and more change.

This issue is seldom put in these terms. Instead, each is inclined to attack and defend such abstractions as "progressive education" and "the philosophy of John Dewey."

The conservatives criticize and maintain that the child should be taught the hard subjects under hard discipline. On the other hand, progressive ideas and programs are too often defended by their proponents as if the critics had no right to raise questions, as if the ideas and practices on which their theories rest were valid for all time. The progressives must become progressive again. There is merit in criticism of a false liberalism that tries to overcome intellectual and social inequality by smothering it in sentiment.

There are differences in the capacities of children and there are differences in their social status. The children know it, their parents know it, their teachers know it. The task of the educator, liberal or otherwise, is to deal directly with these differences and to take the children where they are.

The conservative's program of higher academic standards and more subject matter misses the entire point; the problem of the slum child is a total problem. If the slum child is also a Negro, Puerto Rican, a Mexican, he is segregated socially, economically, physically, and mentally all at once. The problem is poverty—cultural, intellectual, economic, and emotional poverty.

The educator must go to the root of the matter, and he must deal with the whole child. The root is in the social and economic conditions in which the child exists. He must think of education as a total process in which the conditions of society deeply affect the child's mind, the level of his achievement, and the range of his possibilities.

It is no longer permissible to say that the social environment of the child is not the problem of the educator, that it belongs to city planners, social workers, economists, housing experts, or society. It belongs to everyone, but most of all to the educator. He is not merely a personnel manager or an administrator, though he may have those duties. He is a social and intellectual leader and he begins to exercise his leadership when he recognizes the conditions of his society and brings to bear on them the force of a humanitarian philosophy.

WHERE BOTH HAVE FAILED

It is in exactly this matter that conservatives and liberals alike have failed; the conservatives by turning their backs on it and concerning themselves with the intellectually "well-to-do" and cultivation of an elite; the liberals by failing to extend into practice the implications of their own philosophy.

The conservatives have been quite clear in their view that education is a stabilizing force, concerned with transmission of the culture from generation to generation, and acting as a sorting device for the social classes. The liberals have been equally clear that education is an instrument of social change, through which a society may reform itself on the initiative of its citizens.

In practice, liberals and conservatives have addressed themselves of late, not to the deeper questions of social and cultural change, but to a narrow range of emotional problems to be found in the young and to the development of new techniques for learning. They have tended to equate democracy with tolerance and good feeling, while the real questions have to do with the extension of democracy itself.

With education today publicly regarded as an instrument of national policy (a dangerous and misleading assumption), we place our main emphasis on classifying and selecting for special treatment the already scholastically able students, rather than tackling the bigger question of how to correct the social and economic conditions that stunt children's intellectual growth in the first place. A dramatic instance of this neglect of the main issue is our failure to provide even a minimal basis for financing education through federal aid. We have put the money into a $50 billion military budget, because that is where we think the national interest lies.

REAL NATIONAL INTEREST

More correctly, our national interest lies in the construction of a strong and vigorous educational system, reaching into the entire range of the country's population for discovery and encouragement of every talent existing there. Some of our most promising youths are found in the city slums, in Negro ghettos of the southern states, and in the industrial areas of the north where only half the children finish high school. Some of the most talented are not in school at all.

We have the money and we must spend it in massive amounts to clear out the educational slums, to take the action that will give us schools and communities across the country which are truly integrated in a racial, economic, and social democracy.

Presently, our policies are constructing a class system, not a democracy.

NEW PROGRESSIVE MOVEMENT

The time has come for a new progressive movement that can push once more to the front edge of educational and social change. Some are already there—educators like those who began their pioneer work at the George Washington High School in New York, where education of the child in a depressed area was considered a total problem, not merely a lack of high IQ levels in the student body.

The main effort was to enrich the child's total experience by using New York City and its arts and culture as the educational environment, by extending range of possibility for all children beyond the limits of their local streets, by reaching out to the children and their parents with sympathetic guidance and improved instruction in every segment of the curriculum.

The success of that project, now grown to the Higher Horizons program and spreading through similar efforts around the country, is a clear sign of the direction we must go. The success is to be measured, not by how many children formerly educationally deprived now attend college, but by how all children in school are helped to the limits of their particular talent, and how the community is enriched and changed by the increase in knowledge and the lift in attitude.

NEW CONCEPT

Others in the vanguard for a new progressive movement are found among those pressing toward a new conception of the child's mind and his capacity to learn. They are men and women who, like Jerome Bruner in his experimental work at Harvard, are dealing directly with children to find the best ways in which they can learn, and who collaborate with university scholars and teachers from the schools to infuse the subject matter of the curriculum with ideas drawn from modern discoveries in science, mathematics, literature, and the arts.

Too often in the past, those progressives who worked with the whole-child concept made their own separation of the intellect from the emotions, and the child from his society, by placing primary emphasis on the child's psychic security and emotional comfort. Eventually the original concept was corrupted by use and misuse into something no longer recognizable.

There are many who have accepted modern ideas without understanding them, and who have developed a simple-minded psychology which holds that as long as there is good feeling and "warm" relationships, there is healthy emotional development. What may very well happen here is that you get neither emotional nor intellectual maturity, but instead sloppy work, under achievement, and unstable emotions. The removal of authority and of critical judgment on the part of the teacher may leave the child to wallow in a mass of indecision. The child may begin to feel that he must be forgiven everything, and failure to meet sensible standards may be called by dozens of forgiving psychological names.

LEGITIMATE CRITICISM

The conservatives are now legitimate in their criticism of that kind of "adjustment" which adjusts moral and intellectual scruples right out of the educational situation. It is wise for a child to know that there are certain things to which a teacher and a society should not be expected to adjust. But, the conservatives who argue for more discipline, harder subjects, and more of them, seldom pause to think about actual consequences concerning the children. What they are likely to get is elimination of a large number of children who can't do the work. This converts the subjects into testing devices to screen out those who can't do the work well. It may also assure that these subjects will contain little nourishment for the intellectual life of the children who can.

As a result there are extraordinary pressures on the child from all sides—from his parents, from the community, and from the testing program of the school. Such pressures do little more than destroy the possibility of his genuine intellectual growth, since the necessities of testing inhibit the enjoyment of ideas and the deeper consideration of their meaning.

The conservatives, after calling for more discipline, denounce the progressives for wanting the opposite, for wanting to pamper children, cater to their interests, and leave them undisciplined. The kind of teaching the critics describe is not progressive teaching, it is simply bad teaching.

Progressive theory does not call for sacrificing intellectual achievement to emotional well-being or to superficial game-playing. It calls for intellectual activity to which the child can commit himself; it calls for practical experience with the arts, sciences, and society; it calls for consideration of the child's capacity to learn and of the stage of learning he has reached. It holds that the subject matter of the curriculum must be designed in such a way that it nourishes the intellectual growth of the child and gives him a chance to handle ideas for himself.

The trouble with much of the elementary and high-school curriculum is not that it has been constructed by progressives, but that it has not kept pace with the child's ability to learn. It has fallen behind that ability, partly because too little attention has been paid to the child as an individual, thus striking an average of standard material, and partly because too little attention has been paid to the intellectual content of the curriculum itself.

Beneath this is a deeper cause—the lack of sustained attention by scholars in the sciences and the arts to the intellectual quality of the entire public-school curriculum. Therefore the content of the curriculum has seldom been refreshed by the first-rate minds in contemporary scholarship.

FOR A STRONG CURRICULUM

The establishment of a strong curriculum with serious intellectual content is not a question of adding more subject matter in order to give children more to do, or to make the curriculum "harder." It is a question of holding in one's mind a double image of what the curriculum must be and what it must do. The educator must, therefore, have an image of the child in the reality of his school and his society, at a particular stage in the child's life, and in relation to all the parts of that life. Once endowed with this empathy, the educator must then be a scholar who is deeply educated in a field of knowledge he has mastered, and must be concerned that the learner be able to come to terms with that field.

The task is not simply to make things easy for the child, but rather to build a curriculum in such a way that the child is able to learn from it, to enjoy it, to work with it. Out of such work comes intellectual discipline.

We must be clear about this. It is the deepest point of difference between liberal and conservative ideas, and it goes to the ultimate questions of social and moral philosophy.

The conservatives say, in effect, teach the basic traditional subjects, teach them straight, teach them early. There are facts, ideas, and subjects which everyone must know; the children who grasp these readily should be recognized and rewarded, should be assigned to the best teachers, while the rest should be recognized for what they are—inferior in mental ability.

The conservative is really arguing against the compassion of the liberal, who wishes to shield the child from punitive devices, from the structures of authority, and the destructive effects of competition, both intellectual and social, until the child is strong enough to establish a true character of his own. He may then be discovered to have become tough-minded, disciplined in independence, while retaining his sensitivity. To this end, the curriculum must be a means through which each child may become engaged in serious intellectual action; it is the substance on which the child's growth is nourished.

Serious intellectual effort is a joy to the child. The discovery of facts and the creation of one's own conclusions are the ultimate joys of learning. The kind of society which makes this possible is one which respects the child for what he can do and does all that can be done to help him do it. •

Seven Significant Decisions

How the Courts Are Changing the Educational Scene

LEE O. GARBER

In The Nation's Schools

WITHIN the last 10 years, seven significant decisions by the courts of the land not only have become milestones in school law, but even more important, show how the courts are reacting to changes of a social, economic, and cultural nature.

In 1954, when the U.S. Supreme Court ruled against racial segregation in public schools, a gradual evolution of judicial thinking culminated. It had begun with the "separate but equal" doctrine first enunciated by the Supreme Court in 1896. In overthrowing this doctrine, the Court demonstrated that it is not necessarily bound by precedent and that law, as found in judicial pronouncements, is not changeless.

Education in the eyes of the Court, had become a dynamic force, and the Court had kept abreast of social change.

"We cannot turn the clock back," the Court declared. We must consider public education in the light of its full development and its present place in American life . . ."

The sequel to this decision was rendered a year later. In 1955, the Court ordered that desegregation take place "with all deliberate speed." There was no "blueprint" to be followed nor did the Court lay down any kind of hard and fast national pattern. It appears that the Court recognized the need to keep intact the basic premise underlying public education—education is a state function.

Federal courts, in commenting on these two cases, seem to agree that *they do not require integration, but only forbid segregation.*

In 1952, two years before the segregation ruling, the U.S., Supreme Court rendered another decision of far-reaching consequence when it upheld the constitutionality of the New York "released-time" program for religious instruction. In 1948 the Court had declared that the Champaign, Illinois, released-time program was *unconstitutional.* It distinguished between the two

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cases on the basis of the facts involved. (The released time classes in Illinois were held in public-school buildings, while in New York they were not.)

Because of strong dissenting opinions in the New York case (certain justices saw no "significant differences" between the facts of the two cases, contending that in both cases "state machinery" was being used for benefit of sectarian groups), the question may not be answered completely and more litigation may be expected. The main effect of this decision is that it leaves in doubt a question many thought was answered finally in the Illinois case.

DISTRICT IMMUNITY

The U.S. Supreme Court has not made all the important decisions regarding educational changes. In 1959, the Illinois supreme court reached a decision considered to be a bench mark in judicial history. It held that the common law rule of school-district immunity from liability for tort was outmoded, and so overthrew it.

Answering the argument that if the rule "is to be abolished it should be done by the legislature" and not by the courts, the Illinois court stated that the doctrine of school-district immunity was created by the courts, and therefore, the courts have both the power and the duty to abolish it if it no longer serves the public interest.

The great importance of this case may be that it could touch off a chain reaction that will ultimately make the common law rule obsolete everywhere. Other states have enacted legislation making the rule a nullity, but in no other state have the courts ruled in opposition to the common law.

TEACHERS' UNIONS

Another important case, involving the right of teachers to organize as labor unions, was decided by the Connecticut supreme court in 1951. It stated that in the absence of a statute forbidding the right to organize there was no good reason why teachers, as government employes, could not organize as labor unions if they so desired.

It also held that, unless the statute forbade the practice, the board may negotiate with a teachers' union on matters of employment, providing the strike threat is absent. It also said that "an agreement by the board to hire only union members would clearly be an illegal discrimination." Finally, it held that teachers may not strike as a means of enforcing their demands.

In 1959, the Montana supreme court made an important ruling that added to our knowledge of teachers' unions. The court did not find it necessary to rule on the legality of teachers' unions, the right of the board to agree to employ only teachers belonging to the union, or the right of a school board to enter into a collective bargaining agreement. It did hold that an agreement with a union in which the board would not grant salary increases to teachers who refused to join the union was void when applied to tenure teachers.

Thus, the court ruled that "school trustees have no authority or power to discriminate between teachers employed as to the amount of salary paid to each because of their membership or lack of membership in a labor union."

Finally, a 1959 ruling of the U.S. District Court, eastern division of Pennsylvania, is significant, because it marks the first time a federal court has ruled on the age-old question of the legality of Bible reading.

The court held that a statute requiring that each school day begin with the reading of 10 verses from the Holy Bible without comment was unconstitutional. The court held that this constitutes a religious ceremony and, therefore, violates the First Amendment to the Constitution made applicable to the states by the Fourteenth Amendment.

The cases reported, as well as many others during the past decade, are evidence that law is not changeless, and that the courts, when faced with entirely new conditions, attempt to adapt the law to them. Primarily they show that when conditions change, the courts are not reluctant to abandon precedent and beat new pathways; and when faced with unique questions growing out of social conditions, the courts attempt to consider such questions and their implications in arriving at decisions.

They offer indisputable answers to those who would have us believe that the practice of the courts, in following precedent, is reactionary in character and favors the *status quo* by creating a sort of educational strait jacket.

While courts seldom are called on to face such criticism squarely, they have not, when the occasion warranted, failed to speak directly to this point. Their pronouncements indicate that they must walk a tight-rope. They must follow precedent to a certain degree if law is to have stability, but they must not hesitate to depart therefrom, even to the extent of overruling everything they have previously held, when the need arises. •

TEACHING is lagging behind other fields in fringe benefits, and the wide belief that job "extras" teachers receive make up for their low salaries is not true. Education today is the follower rather than the leader in the field of fringe benefits. Such benefits as group health and life insurance, sick leave, personal and professional leaves of absence, and even retirement plans, have often become far more generous in business and government than in education.—From *Fringe Benefits for Public School Personnel.*

The Courts and Married Students

HOWARD A. MATTHEWS

In School Life

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Reported from School Life, *XLIV (November-December 1961)*, 5–9.

INTEREST currently is high in the subject of marriages among adolescent youths. Since many such marriages involve public-school students, the subject should be of particular interest to teachers, administrators, and school-board members.

Some student marriages bring students and school-board members into court on opposite sides of the judge's bench. There is every indication that there will be more student marriages, resulting in more litigation.

In the nearly 100 years that have passed since the first court test of a statute relating to the admission to a public school of an applicant "under 21 and unmarried," courts of record have heard less than a dozen cases involving married students in the public schools. Two were heard in 1929; the others since World War II.

An analysis of the decisions in each case suggests to me a growing disposition of the courts to look with some favor on rules and regulations of boards of education limiting or restricting activities or attendance of married students and otherwise discouraging early marriages.

Perhaps the most frequently cited decision of an appellate court of record on the right of married students to attend public school is the one handed down by the Supreme Court of Mississippi in 1929. At issue was the right of a school board to bar a student from school solely on the basis of marriage. The board had passed the resolution under authority granted by the state to school boards to "suspend or dismiss pupils, when the best interests of the school make it necessary."

The case concerned a 15-year-old girl denied admittance to school for no other reason than that she was married. The court stressed the separate powers of the board of education and of the courts in these words:

"The court will not consider whether such rules and regulations are wise or expedient, but merely whether they are a reasonable exercise of the authority conferred upon the trustees by law. It is peculiarly within the province of the trustees to determine what things are detrimental to the successful management, good order, and discipline of the schools in their charge, and the rules required to produce those conditions."

In striking down the board's regulation, the court said:

"It is argued that marriage emancipates a child from all parental control of its conduct as well as such control by the school authorities; and that the marriage relation brings about views of life which should not be known to unmarried children; that a married child in the public schools will make known to its associates such views, which will therefore be detrimental to the welfare of the school. We fail to appreciate the force of the argument. Marriage is a domestic relation highly favored by the law. When the relation is entered into with correct motives, the effect on the husband and wife is refining and elevating rather than demoralizing. Pupils associating in school with a child occupying such a relation, it seems, would be benefitted instead of harmed."

In 1929 the Supreme Court of Kansas had to determine the reasonableness of the exclusion of a married girl from school for reasons of questionable conduct. Though the courts said that the right of every child to attend public school is always subject to reasonable regulation, and that a "child who is of licentious or immoral character may be refused admission," a majority of its justices declared the board's ruling invalid, stating:

". . . The evidence was insufficient to warrant the board in excluding plaintiff's daughter . . . It is the policy of the state to encourage the student to equip himself with a good education. The fact that the plaintiff's daughter desired to attend school was of itself an indication of character warranting favorable consideration. Other than the fact that she had a child conceived out of wedlock, no sufficient reason is advanced for preventing her from attending school."

However, three justices dissented, contending that the judgment of the court "should not be substituted for that of the board of education."

Not until 1946 did another court of record hear a case on the attendance of a married student. In that year the Supreme Court of Louisiana set aside the ruling of a juvenile court, which had found a 15-year-old married girl to be truant for not attending school, thereby violating the compulsory-attendance law. The lower court had disregarded her plea that marriage gave her an exemption.

The higher court found in the girl's favor. In substance, the court's ruling means that a juvenile becomes an emancipated "minor" when he marries and is no longer a child in the sense that he is under the care and control of a parent, guardian, or other person responsible for his school attendance.

This disposition was reaffirmed by the Supreme Court of Louisiana in 1959 when the court held that the marriage of a 14-year-old girl, although illegally performed, was valid and that she was not a "child" under parental or other control and, therefore, not subject to compulsory-attendance laws.

The court emphasized, as did the dissenting justices in Kansas in 1929, that the court's responsibility is not to fix public policy but to interpret whether the acts of public officials conform to the laws enunciating public policy.

TEMPORARY EXCLUSION

In 1957 the Supreme Court of Tennessee heard the first test in a court of record on the reasonableness of a school board's temporary exclusion of married students from school under certain conditions. It found reasonable the board's resolution excluding from school for the rest of the term students who marry during a term and excluding from the next term students who marry during the vacation.

In deciding in favor of the school board—the case involved a young woman of 18 who married in February of her last year in high school—the court noted the fact that the board had acted on the advice of high-school principals of the county.

The Tennessee court apparently rejected the reasoning of the Mississippi court in the McLeod case and accepted the opinion of the high-school principals that, at least for a limited time following marriage, the married student's presence in the school has an adverse effect on the morale and efficiency of the school.

In distinguishing this case from the 1929 Mississippi case, the court declared: "Whatever else may be said of that case, it is distinguishable from the instant case by the fact that the resolution there adjudged unreasonable, hence void, expelled such marrying students *permanently* from the public schools." (Author's italics.)

In 1959, the Dallas, Texas, Court of Civil Appeals followed the reasoning of the Tennessee Supreme Court and sustained a resolution by a local district that restricted activities of married students.

The case was brought by a married student barred from playing football. (He was hoping to win a college athletic scholarship.) He attacked the board's ruling as discriminatory, unreasonable, and unconstitutional in that, among other things, the resolution had been passed after his marriage.

The court did not consider the opportunity to win an athletic scholarship a vested right. It held that football is extracurricular and not a part of the regular curriculum. In rejecting the student's argument, the court said of the board's resolution, "Undoubtedly it had a direct relationship to the objectives sought to be accomplished by school authorities—that of discouraging the marriage of teen-age students."

The Dallas court's decision upheld the principle that school boards have the power to make such reasonable regulations as they deem proper and the right to exclusive management and government of the schools.

The second appellate court case involving the right of school boards to restrict extraclass activities of married students was heard by the Supreme Court of Michigan in 1960. The court split 4 to 4 on an appeal from a decision of a circuit court which found that a school district does not violate statutes guaranteeing equal opportunity to use public educational facilities by excluding married students from participating in extracurricular activities. Although the equally divided vote has the practical effect of affirming the lower court's decision, the action does not establish legal precedent.

A mandamus action was brought early in 1961 in an Ohio court of common pleas for reinstatement of a 16-year-old married student excluded from school under a local district's rule requiring pregnant students to withdraw. The court sustained the board's regulation, and emphasized the wide discretionary power of school boards in operating schools, and noted a section of an Ohio statute which permits exemption from compulsory attendance because of "bodily or mental conditions."

However, the court observed that public policy in Ohio requires that basic education "may not be frustrated or thwarted by boards of education by adopting a rule that marriage in and of itself will cause a child to be prohibited from attending school."

From the cases I have reviewed, it appears that there is developing a degree of uniformity in the judicial mind on several issues raised by the presence of married students in the public schools.

WHAT TO EXPECT

I believe that we can expect the courts to rule consistently that students who marry against the wishes of the school board cannot be excluded from school solely on the basis of marriage.

It appears that the courts will hold generally that compulsory attendance statutes do not apply to married students.

The most recent court decisions suggest that the courts will continue to be reluctant to substitute their judgment for that of school boards and that they will find reasonable, and within the authority of local school boards to make, regulations excluding married students for limited periods of time following marriage or during pregnancy or restricting married students from certain activities. Such disposition of the courts will support school boards in their efforts to discourage early marriages of public-school pupils. •

IT seems fair to say that there would be far fewer teenage marriages if our teenagers were not so long in finding social recognition. To me it seems highly important that society provide wholesome ways in which adolescents can express their healthy and natural desires to move into social adulthood as they approach physical and mental adulthood.—*Emily H. Mudd,* Philadelphia Marriage Council.

Are Parents "The Enemy"?

Should Parents Know the Results of Intelligence Tests?

GILBERT M. TRACHTMAN

In The PTA Magazine

Gilbert M. Trachtman is Research Coordinator, Long Beach City School District, New York. Reported from The PTA Magazine, *LVI (January 1962), 4–6.*

WHEN we speak of parents knowing the *results* of intelligence tests, we must specify what we mean by results. Any intelligence test is nothing more than a sampling of one child's behavior in one particular area at one particular time.

The sample (test) may be more or less representative of true ability, depending on many things. For instance, an individual test given by a psychologist is likely to be more accurate than a group test. It also tells the psychologist much more about a child's abilities and potentialities than does a mere numerical rating. Different group tests sample different aspects of a child's total range of abilities and statistical technicalities add other complications.

Obviously, if a child's intelligence-test results are to have meaning for his parents, a professional person with special training must tie all the data together to give a unified picture of abilities.

For these and other technical reasons, more specialists in tests and measurements are recommending that intelligence test scores not be circulated among teachers or school staff. Instead they suggest that school records preserve intelligence-test results in broader, more descriptive categories. A child's folder might show that in three successive intelligence tests over the years he has scored in the average to bright-normal range, rather than giving the confusing information that he has scored 105, 115, and 110. This practice would reduce the tendency (which exists even among school personnel) to think of numerical scores as exact measures of clearly definable abilities.

Parents are not told specific scores in school systems practicing this method, since scores are not available to other people in the schools and should not be in the school records. In systems that do report and record specific IQ scores, parents not only are entitled to consultation and interpretation of test results but also have the right to learn the specific scores that are part of the school records.

When parents and school officials cross swords over the school's right to withhold intelligence test results, the issue at stake is broader and more important than knowing how the child has performed on a certain test. The issue is the nature of the home-school relationship and the degree of trust between parents and the school staff.

Disputes between individuals, groups, or even nations stem frequently from the failure of both parties to see things as they really are. Each interprets the actions of the other in terms of his own preconceived notions. Each makes false assumptions about the other's goals or intentions. Before amity can be restored, the air must be cleared of these distortions and misconceptions.

So it is when school and community are at odds. Parents may be suspicious of new approaches the school is attempting or impatient with its old-fashioned methods. They may lack a full understanding of the magnitude of a teacher's job.

Teachers, psychologists, and other staff members may be equally responsible for a cold war between parents and teachers in some communities. A most common tendency is to classify all parents as "the enemy."

Whatever the reason, when a battle develops over parents' rights to know their child's intelligence-test results or to inspect his records, the battle is a symptom of a larger conflict and can be solved only as part of the larger solution.

Parents and teachers need to establish a good working philosophy of home-school cooperation before approaching the issue of intelligence test results. For this goal, the following four-point guide to the respective rights and responsibilities of school and home is suggested.

RESPONSIBILITIES

The school's responsibilities.—School staff members should recognize that, for the most part, parents share the school's goals and are deeply concerned for their children's welfare.

With few exceptions parents want to learn more about their children—not to attack the school or the teachers but to help the children. Hence it is the responsibility of teachers, counselors, and psychologists to communicate freely with parents, sharing their knowledge and seeking, through a free-flowing interchange, to gain more knowledge and better understanding. All pertinent observations and findings about each child-including test information—should be discussed regularly by staff members meeting with the child's parents.

Home responsibilities.—The welfare of their children is a primary parental concern and parents should seek information that will help them to understand their children better. Parents should recognize that most professional persons, well trained in their fields, are highly competent and are ready to confer with parents whenever a conference will serve the best interests of the child. Parents can best serve the child by consulting with an appropriate member of the school's staff, who can interpret and explain recorded observations and data. There should be no concern with a particular test score, which may be meaningless out of context. Rather, parents should seek a professional assessment of their child's abilities, achievement, and potentialities, based on the multitude of data available to the psychologist, counselor, or teacher.

RIGHTS

The school's rights.—School staff members should be free to draw on their professional training in making professional judgments. One such judgment may be the decision that certain kinds of material are not suitable for general dissemination within the school. For example, a teacher might make running notes on a child's classroom behavior. At any given time these notes may not show a balanced picture of a child. Therefore they should not be included in files that other staff members use. At the end of the year the teacher will write, from her notes, a summary report describing and evaluating the child. This report, based on the teacher's total knowledge of the child, represents a considered professional evaluation. It should be placed on record where it can be helpful to other staff members.

The same reasoning applies to other professional staff members. Materials gathered but withheld from others in the school should not become part of the record. Materials available to others in the school should become part of the record and thereby become available to parents.

Home rights.—A parent is well advised to seek an interpretation of the child's record rather than to inspect the files. However, for some reason the school may have failed to win the parent's confidence. Perhaps the parent is not satisfied with a conference or perhaps chooses not to request one. Then parents should have the right to inspect the records that are available generally to school staff members.

Communicating test results to parents is only one aspect of communicating knowledge about their children. Do parents have a right to know everything the school knows about their child? The answer is an unqualified *yes*. Do schools have responsibility for communicating everything they know about a child to a parent? Again an unqualified *yes*. But does every isolated fact about a child represent real information? *No*.

Parents and educators alike need to realize more fully that intelligence tests are but one tool for understanding and helping children. Like most tools they can be of great value if properly used. Misused they can become weapons of dissension between home and school—and do untold damage to the child. •

To Relieve Tensions

Human Relations in Supervision

Edith S. Greer

In Education

IN education the term "supervision" no longer carries with it the connotation of "overseeing for direction" or "inspection with authority" which Webster gives to it. In the last three decades there has been a decided change from the attitude of inspection to that of helping teachers to work for selfimprovement.

If a supervisor is to help teachers develop an enthusiasm for seeking to improve themselves and their teaching, a stimulating atmosphere free of tension needs to be established. Such a climate helps teachers to feel more adequate and sure of themselves, their aspirations, and their beliefs.

This is difficult to achieve because supervision is teeming with tension-producing areas. Some of these more important areas are: the role of the supervisor in teacher evaluation; varying perceptions of the supervisor's role; and the cooperative approach to supervision with which superiors are often impatient because of lack of quick results.

In addition, there are special pressures today due to interests and efforts to effect curriculum change. Teachers and supervisors find themselves working harder and longer under conditions that tend to increase the impact of irritations and aggravations until teachers often have difficulty determining what their problems really are. This makes it more urgent that the supervisor attempt to create an environment in which the teacher is helped to identify his problem and develop ability to solve it. To do this, the supervisor must understand which factors help to create a good climate and which may be tension-producing.

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More and more supervisors are becoming aware of the importance of the human-relations aspect of their work. Its influence on the attitudes of teachers and, consequently, on the type of educational experiences students are being given can no longer be overlooked. Greater stress is being placed on this phase of supervision by national, state, and local groups of supervisors and curriculum workers. As a result of this national concern, the Association for Supervision and Curriculum Development (ASCD) several years ago established a Commission for the purpose of helping to reduce tensions.

In working together, ASCD Commission members found that by bringing to the group for discussion the reports of their own experimentation in this area, research of others, and successful practices observed, all were able to go back to their school groups with new ideas and greater enthusiasm for doing a better job. They discovered that good human relations were built by a supervisor who gave the teacher a feeling of importance, of being one of the team, and of making valuable contributions. Specific techniques, such as discussion groups, can be applied to matters of curriculum, instruction, etc., to build that feeling of importance and team membership and achieve the resulting benefits of enthusiasm and effort on the part of the teachers.

In many instances, Commission members found tensions and resistances developing because supervisors expected too much of their teachers and because there was not sufficient communication between teachers and supervisors to acquaint supervisors with the problems. Instances were found where impatience, irritations, and criticisms would impede progress of a project because, even with meetings and discussion groups, misunderstanding developed. In one situation the misunderstanding resulted because the supervisor thought progress was too slow. Only after he had checked with supervisors from other systems did he become convinced that satisfactory progress was being made. As a result, he revised his procedure so that the teachers did not feel "pushed," and progress resumed.

Although supervisors and administrators may recognize the importance of human relations and may be familiar with some of the factors that can improve or hurt these relations, they are not always able to determine what factors are at work in their particular situations. School systems recognizing the importance of identifying such factors have used various techniques to discover causes and to relieve school staffs of such tensions.

TECHNIQUES USED

One technique provides for a person writing or telling someone what his tensions are. The act of writing or talking about one's tensions serves as a kind of therapy—it often makes one feel better.

Among the school systems taking advantage of this technique to improve morale, the Seattle, Washington, system is one that employed the technique with an opinion inventory and an opinion survey. The results of the surveys helped Seattle administrators to learn which areas were causing a great deal of concern. For instance, it was found that the problem of communication was basic to all areas where groups or individuals gave any evidence of trouble. The administration was able to institute a follow-up. The surveys served, also, to improve staff morale because of their therapeutic value and because they gave teachers the impression that the administration was interested in their feelings and attitudes.

The ASCD Commission tried out a version of this same technique by sending a questionnaire to a sample of the Association membership. Although the percent of questionnaires returned was small, and the results were not statistically reliable, it was interesting to note that very often the person answering the questionnaire felt that the cause of his concerns or frustrations was due to actions or attitudes of other persons in various educational categories.

The majority of the returns, especially those of supervisors and curriculum personnel, indicated a need for the clarification of their roles and of basic philosophy of education.

In the suggestions for meeting the problems, many ideas were given which included actions that the individual himself could take. Time after time the idea of self-study was mentioned as were the need to understand others, the need to accept and work with those whose values differ from theirs, and the need to listen more and talk less.

These responses showed that supervisors recognize the great importance of knowing and understanding themselves and also those with whom they work.

There are countless ways of working with people, and many more practices which supervisors have found successful could be cited.

The value of any technique is measured in terms of its ability to assist in developing a deeper understanding of individuals in the group. A supervisor must have this understanding to provide his teachers with the type of environment that will foster in them a desire to improve their abilities and a willingness to do what is necessary to attain this growth. Only in this manner can the teachers and supervisors progress toward their goal of developing the best possible educational programs for children. •

- One of the principals at a recent district principals' conference stood up and said, "Since I've been appointed, there has been a tremendous increase in emotionally disturbed children in my school."—From *Sol Botkin*, Baldwin Harbor, N.Y.

- If we are to succeed in the great struggle of ideas that is under way, we must first of all know what we believe. We must also become clear in our own minds as to what it is that we want to preserve.—*F. A. Hayek.*

What Should a Good Testing Program Do?

External Tests and the Junior-High School

David B. Austin

In The Bulletin of The National Association of Secondary-School Principals

IN the years ahead, the education enterprise will be encouraged or required to improve the means and methods of evaluating its accomplishments. The results must be transmitted to interested parties—including the public—in clear and accurate terms. When educators are challenged concerning the quality of their stewardship, they must be articulate, specific, and honest if they are to justify the confidence of those to whom they are accountable. This is an inescapable concomitant of "serving" people.

The increased demands for test scores, for quantitative evidence that Johnny and Mary are learning, are not surprising. The apparent reassurance of a percentile score or grade-level norm encourages their use when given to parents. The temptation to "prove" that we are doing well in our school by publishing group test results may provide relief in our daily schedule of callers, if not to the conscience of the informed and devoted teacher or principal.

The trouble is that some things which we believe are legitimate concerns of education for early adolescence are subtle. They do not lend themselves well to the pencil-and-paper kind of measurement. In fact, such measurement when employed ostensively will tend to divert us from more important tasks and cause a further breakdown in what we tell parents, board members, and interested citizens.

This raises the perplexing question of stress and priorities as they are affected by the increased availability of testing devices of all kinds. Are subjective judgments of experienced teachers of no worth when contrasted with scores of skillfully prepared paper-and-pencil tests? Do we avoid standing firm in regard to the early purposes and basic functions of the junior-high school merely because we cannot prove beyond question that what we do in our schools accomplishes the goals of the junior high? Are we fearful of embarking on programs of education which are in harmony with modern needs of youth merely because we do not have at hand an instrument for

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quantification of results obtained? If so, secondary education as we now conceive it will lose its vitality and value. We will allow it to sink to the level of the conditions which provoked the early phases of progressive education.

Is such a dark picture justified by the facts? Some educators, including highly qualified experts in the field of testing, have sought such evidence through various means. Arthur E. Traxler raised the question, "Are the Professional Test-Makers Determining What We Teach?" In a postcard inquiry addressed to the members of the Educational Records Bureau, Traxler found that 51 percent of his respondents felt that standardized tests influenced what was taught in their schools. The inquiry was addressed to 625 independent schools, 70 public schools, and 35 colleges. Three quarters of the public schools responding replied in the affirmative, and half of this group felt that the influence was either considerable or great.

Comments and protests from educators throughout the country induced the American Association of School Administrators, The Council of Chief State School Officers, and the National Association of Secondary-School Principals to embark on a joint study of opinions of members of the organizations concerning a possible threat to the quality of education by the increase in numbers of tests secondary schools are being expected to use.

Reports of this inquiry include an impressive number of letters expressing deep concern. Time for teaching and learning is being reduced so that students may prepare for specific tests. Many tests overlap but must be taken by students seeking admission to various colleges. Ridiculous numbers of students take screening tests in the hope of winning one of a relatively small number of scholarships. And there is a mounting tendency to judge entire school systems by the number of scholarship winners and on the comparative grade-norm scores of pupils.

These complaints and charges concern specifically the upper secondary-school years. But with increased dependence on standardized testing for evaluating schools and school systems, it is doubtful that junior-high schools will be immune to these threats.

Professional test makers and publishers have filed demurrers. They point to carefully worded instructions cautioning the user as to the significance which should be attached to test findings. Others insist that they are not responsible for the decision of an individual school to use their tests—while their sales personnel continue to call on potential purchasers with optimistic pictures of what a planned program can produce.

NOT A GHOST PROBLEM

To dispel any thought that the problem is a ghost and will soon disappear, it should be noted that the National Defense Education

Act encourages a wider use of testing programs through financial support. Many schools for the first time can now afford a planned and desirable program of testing. Others are being urged to use tests to clear storage space under control of state departments of education, according to reports received by the Joint Committee on Testing. Availability is one thing; supersalesmanship quite another.

The purposes of the junior-high school can be served and protected from distortion through both a wiser and wider use of tests. A defensible testing program in junior-high schools should:

Clearly contribute to the accomplishments of the major purposes of the school.

Be efficient—testing what we need to know in a reasonable length of time and without sacrifice of other important educational values.

Be readily interpreted by those who can best make use of the findings—counselors, classroom teachers, students, parents, curriculum specialists, and administrators.

Be honest—that is, the design of the program should include means of accurately assessing accomplishments, aptitudes, and interests but not be misinterpreted by its designers or users in the total complex of education's role in working with human beings as they learn, grow, and develop.

The problem of developing a sound testing program within a given school or school system calls for expertness of a high order. It is not something which can be left to the whims of careless enthusiasts nor the persuasion of expert salesmen. It calls for thorough study by the school staff, with the advice of competent resource persons and wide-spread involvement of teachers and principals.

A major difficulty in meeting this problem is that of the inadequacy of professional personnel in the selective development and use of tests. There is need for in-service upgrading of all educators in evaluation procedures. Such preparation will produce greater resistance to blind faith in printed commercial tests, better use of teacher-made tests, and improved skill in the interpretation of test results to students and the general public. Most important of all, we should acknowledge the inability to evaluate objectively the effectiveness of some important learning activities of the junior-high school, yet confidently persist in working on those activities.

It is not merely a matter of having faith in the importance of stressing the exploratory function or of helping young people develop a sense of their place in the cosmos. It is, rather, our confidence in what devoted, intelligent teaching can accomplish despite the lack of sharp and shiny instruments to measure all our work. The valid purposes of the junior-high school must be courageously championed if youth in modern America are to be well served. •

The Art of Using an "Assistant-To"

Your Right-Hand Man

In Overview

IN nearly all the 6,317 public school districts enrolling 1,000 or more students and the more than 2,000 institutions of higher education there is someone who functions as the chief administrator's right-hand man, whatever his title.

There are two reasons for provision of an "assistant-to" and they reflect two different characteristics of the chiefs being assisted.

First, all executives are subject to frailties of flesh and mind and must be provided with a deputy to act "in his absence or incapacity." Frequently this doesn't work well because most administrators are uncomfortable with the presence of a strong understudy waiting for the day of even temporary succession. Too often, a school or department head will be designated because of seniority and probable lack of qualifications (posing no threat) for the succession.

Perhaps this is what prompted President Cordiner of General Electric to report to a Harvard conference: "We have tried to eliminate all assistants." He was opposed to assistants, he said, because they add extra layers between worker and top management and because assistants to executives were nearly always passed by for promotion and became no more than glorified errand boys. The able people are needed in operating positions, he asserted, implying that the others might be replaced by secretaries.

Second, the top executive can talk freely and fully to few people. He gets lonely. To them an "assistant-to" is invaluable as a confidant, however he may contribute directly to effective administration. Since the assistant is usually much younger and much lower on the salary and experience scale, he represents no threat to the head and, initially at least, none to the principals or deans whose access to the chief is so important.

Ideally, then, the assistant-to has no personal authority. He handles routine decisions as his chief would, given the same facts and personalities to deal with. He is recognized by all as exercising no authority but that of the head he represents and he regards as his prime test the ability to avoid friction.

Reported from Overview, *III* (*February 1962*), *31–32.*

The wise chief designates someone other than the assistant-to as deputy to serve in his absence or incapacity. And the wise assistant-to sees this as essential to effective performance of his own important functions. His functions, then, are clearly service—helping others to carry out policies, decisions, or procedures established by the chief's authority.

HELPFUL PRACTICES

In their book, *Staff in Organization,* Dale and Urwick found the following practices in nearly all cases where an assistant-to appeared to be really helpful:

The executive has analyzed his own job in terms of his major leadership responsibilities and the workload each imposes. This indicates the functions the assistant-to can perform.

Should the chief want the assistant-to to perform any duties not strictly of a general staff nature, this is made clear in his job description.

The assistant's relationship to his chief's subordinates, and to other executives with whom he will have contact, is defined.

The assistant-to has a good basic education and adequate experience in line jobs and special staff work.

The assistant understands his functions and receives special training before appointment.

The chief, when possible, sets definite days and hours to see his assistant.

When absent, the chief nominates a senior officer to "answer for him," so that the assistant will neither have to assume authority nor let things slide.

Assistant-to positions are not created solely as training devices or part of an executive development program. They are useful for training only if the assistants are really needed, for only in this way can the assistant-to work under pressure, handle people in delicate situations, see problems *in toto,* and profit by his mistakes.

Each incumbent of assistant-to position is limited to a few years of tenure, and plans for his future employment in another capacity are made in advance.

YOUNG OR OLD?

A few educational executives have used as their assistant-to an older person with broad acquaintance in the institution and no ambition for staff advancement. Most chiefs, however, use the position as a way of seasoning bright, young people. In large institutions this pays off directly when appropriate administrative positions open. And school districts have named to principalship men who gained experience and unusual perspectives as administrative assistants. More typically, though, the assistant-to takes his experience off to some other institution.

The form of administrative structure, rather than an institution's size, is perhaps more meaningful in making a decision whether to provide an assistant-to. Tables of organization charts are helpful, if they genuinely reflect actual distribution of authority and responsibility. They become less and less meaningful as we leave the hierarchial system of command (borrowed from the military). With more emphasis today on "democratic administration," we lost our concern for structure in the realization that authority is not a one-way flow from board down to teacher but is an unchartable responsibility up and down the structure and between the institution and those it serves.

The post-war expansion within institutions brought improvised arrangements as schools and colleges tackled staggering enrolment problems. As one administrator put it, "We had hardly won the battle for unit control when the single man at the top was so engulfed that for selfpreservation he had to diffuse the power."

The result has been a great expansion in the layers of administration between operating staffs and the chief. Most have found that for "selfpreservation" it is advisable to have a colleague on whom they can rely to handle the routine decisions. •

• The typical American school superintendent is a man 51 years old who comes from a rural or small-town background. Very likely he was the oldest child in a family that was somewhat larger than average. He took his first educational position when he was in his 20's, and his first supervisory position when he was about 28.

He first became a superintendent when he was 36 and he thinks of his job as an "ulcer mill." When pressed, he will admit that there are few people with whom he would trade places.

On the way to becoming superintendent, he usually was a teacher and later a building principal. This is less true in the larger cities where central office administration is an important step. While teaching, social studies, science, and math were the principal subjects. Nearly one-fourth of the superintendents were coaches at one time or another. Among the fields of study regarded as most important for the job, school finance ranked first. The median length of time in present position—eight years.—From *Professional Administration for American Schools.*

• A strong leader knows that if he develops his associates, he will be even stronger.—*James F. Lincoln.*

Should We Say, "Like It or Leave It"?

Compulsory High-School Education and the National Interest

DONALD E. WINCHELL

In Ohio Schools

THE suggestion that reluctant pupils be allowed to quit school at will has been voiced by most teachers at one time or another. Typically this comes after a particularly harrowing experience with one or more "problem" youngsters. The perspective usually changes after a good night's sleep.

But when the idea is advanced in all seriousness, being presented in an article published in a professional journal, for example, the topic deserves a second look.

Several important questions are raised. Is it to the national interest to dump unskilled and uneducated youth into a world of work which is asking for better trained and better educated workers every year? What would stop capable youngsters who tired of school from dropping out? What would prevent parents from pressuring reluctant pupils to stay in school even though the law would allow them to quit? How could the youngster who wanted to stay in school be kept there if his uneducated parents wanted him to drop out? Would educators continue to plan for a broad curriculum, intended to meet the varying needs of all, if pupils who find the existing offerings unpallatable were allowed to quit?

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The question of compulsory or voluntary high-school education should be viewed in terms of the purposes of public education. We have, by tradition, set our goals pretty high. We have long believed that, in a democratic society, our strength lies in an intelligent and educated public.

Public-school educators are thus charged with responsibility for the maximum development of every educable mind through the years of legal compulsory attendance. We cannot afford to waste any talent. We must seek and develop the talents of even the reluctant pupils.

It seems naive to believe that only a small minority would quit school if given the chance. Compulsory attendance holds even some talented pupils who would otherwise drop out. Practically every experienced teacher can tell of at least one former pupil who suddenly "blossomed" after a long academic slump, some to become highly successful in respected colleges.

What would have happened to these "late bloomers" had they been allowed, at age 15, to decide that they have had enough schooling? Perhaps the greatest need of youth is for someone to make them do what they ought to do. This sounds a bit too coercive, but illustrates the point.

Realistically, we are all aware of the problems of compulsory education. Yet we must remind ourselves that the laws do allow for modification in cases where pupils are truly uneducable or where other serious problems are involved. Perhaps there is need for reforms which would liberalize this somewhat. Perhaps more should be done to gain the cooperation of employers in arranging for suitable jobs for the dropouts, or in adjusting the restrictions on the employment of minors.

But to open the doors and say "Like it or leave it" would be to admit our failure to locate and develop the hidden interests and talents of our reluctant pupils. By what logic can we assert that, because some pupils are reluctant learners, our programs are faultless and the pupil's education should be discontinued?

One writer recently described the challenge which would be met by educators in a school system where high-school attendance would be voluntary. He implied that most of our troubles would be over if we could only get rid of the few recalcitrant pupils. Teachers would be challenged to marked improvement, citizens would vote for bigger levies, and the federal government would stop wasting money at Cape Canaveral and on foreign aid to provide more money for a public-education system (which fails in its obligation to develop every young citizen according to his individual potential!).

Let us not delude ourselves! If pupils who find school distasteful are allowed to drop out, the emphasis would soon be on "higher standards" and the dropout rate would increase. As this process of selection continued, the public would become less satisfied with their schools because they would serve a decreasing segment of the youth population. Those who dropped out would become a growing problem to our society, and they too would become a part of the voting public.

Our real challenge lies in the study of reasons *why* pupils lose interest, and in modifying curriculum and methods until interest is stimulated and undiscovered talents are found and developed.

This is not to say that school must be a delight and joy to all pupils at all times, but marked indifference, poor behavior, and the like should be considered as symptoms which indicate that we are not meeting the needs.

Instead of saying "Like it or leave it," let us say "How may I help you?" •

Is a Teaching Contract a One-Way Street?

H. I. Von Haden

In NEA Journal

DURING late spring and summer, each mail delivery brings to the desks of school superintendents across the country letters from teachers presenting resignations or requesting releases from contracts. The increasing number of these incidents involving newly employed teachers is a matter of deepening concern to school systems and college placement offices.

Superintendents and school-board members are beginning to wonder whether teaching contracts are "one-way streets." Are they to be honored meticulously by employers and disregarded at the convenience of the employes?

In an effort to gather information concerning attitudes toward honoring contracts by beginning teachers, opinionnaires were sent to superintendents, personnel directors, and a sample of classroom teachers. One hundred usable responses were obtained from administrators, and 172 from high-school and elementary teachers.

Nine situations involving the most common reasons for breaking contracts were presented in the opinionnaire:

1. Susan, a graduate in this year's class, signs a contract to teach at Lincoln. Later, Adams offers her a contract for $400 more.

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2. Susan's April contract is to teach English and mathematics. The Adams offer is for straight mathematics, which she definitely prefers.

3. The Adams position will enable Susan to live at home and save considerable money.

4. After signing the Lincoln contract, Susan and her boy friend decide to marry and live in Adams.

5. From a professional angle, the Adams school system is definitely a better one.

6. Susan's mother lives in Adams and has become ill after Susan signed the Lincoln contract.

7. After signing the Lincoln contract in April, Susan decides to attend graduate school.

8. After signing the Lincoln contract, Susan learns that her girlfriend, with whom she was going to share an apartment, has decided not to teach at Lincoln.

9. After Susan has signed at Lincoln, her entire family decides to move to Adams.

The respondents were then asked

to indicate the procedure Susan should follow in each of the situations. The choices were:

1. Ask to be released from Lincoln.

2. Resign at Lincoln and sign the contract at Adams.

3. Explain that she has signed a contract and cannot consider another.

4. Ask the Adams superintendent to request a release from Lincoln.

5. Sign the new contract and later inform Lincoln of the fact.

The opinionnaire asked administrators and teachers polled what Susan should do in each of the situations if it arose in May and also asked what she should do in late August.

In every situation, both teachers and administrators advocated more strongly that Susan honor her first contract if the problem arose in August than if it occurred in May.

For every situation except the apartment sharing, over 50 percent of the teachers recommended asking for a release or resigning if the situation arose in May. More than 50 percent of the administrators favored resigning or asking for a release in May in the event of impending marriage, illness of the mother, a decision to attend graduate school, or the family's moving.

Asking for release, rather than resigning outright, was judged better procedure in any case by both groups.

A majority of both teachers and administrators felt Susan could forsake Lincoln in good faith if her mother became ill in August, and most of the teachers felt she would be justified in giving up her position at that time if planning to enter graduate school.

Both groups were least impressed with the problem of sharing an apartment. Superintendents were more generous than teachers in the hypothetical situation involving marriage.

In general, "ask for a release" was the most common response for May, and "cannot consider another contract" the most common for August.

Written comments by more than 60 percent of the respondents indicated a keen interest in the problem. An observation by a county superintendent summed up the attitudes of many employers: "After all, why should a contract be binding for only one of the contracting parties? The local board is bound; why shouldn't the teacher also be bound?"

Despite the lenient attitude of both teachers and superintendents, the preponderant view seemed to be that expressed by one teacher, "Most assuredly a person who cannot himself behave in a responsible and moral manner will never teach children to be moral and responsible people."

A number of respondents suggested that teachers, administrators, college instructors, and representatives of various professional organizations work together toward solution of the problem. •

High-School Graduates on Trial

HENRY WINTHROP

In The Clearing House

ONE of the best ways to assess the equipment, interests, and skills of our high-school graduates is to observe them as freshmen students functioning in college and university classes. If this select group, representing the upper 40, 50, or 60 percent of high-school graduates, falls short in one or more respects, one can be certain that the same deficiencies would be more fully present if the entire graduating class had been sampled.

Every college teacher has some impression of the *typical* freshman, with respect to many cultural and intellectual considerations which are important enough to constitute the *sine qua nons* of an effective general education.

Recorded below are my own impressions of the typical freshman intellectually and culturally, before he either quits from hopelessness or before he is presumably somewhat improved by a college education.

Rather than an exhaustive intellectual profile, I present here some deficiencies which my own experience seems to confirm. Some of these deficiencies are clearly attributable to the teaching in our secondary schools. The responsibility for others may not be the high-school's fault but it can be said that the high schools failed to do much to eradicate the deficiencies. It is with these deficiencies that the college teacher has to work. I will list some of them and discuss those which I feel augur badly for mass education at either the late secondary or early college level.

WORST OFFENSES

From the standpoint of learning and from the standpoint of the teaching situation, the worst offenses are:

An interest in *verbal* definitions rather than *functional* or *operational* definitions.

A desire to manipulate symbols without understanding them.

The habit of expecting learning to be a passive operation in which it is either poured into or pasted on the patient.

An inability both to see a point and to stick to it.

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An inability to handle *representative* language.

An incapacity for functional thinking in the mathematical sense.

A satisfaction with a superficial familiarity with, or understanding of, most subject matter.

An inability to organize material intellectually.

A desire for packaged information via lectures, clear-cut and absolute statements that settle all controversial issues, comprehensible blueprints for the solution of all social issues mentioned by the instructor, and a deep-dyed conviction that education consists of the boring task of collecting factual and often unrelated minutiae.

An insistence on thinking about the most complex of problems in terms of only one or two relevant variables—what a member of the James family once called "unawareness of complexity."

OTHER CHARGES

The remaining charges are deeply involved more with an individual's sense of values rather than his intellectual or educational deficiencies. They include:

A fear of intellectual novelty in teaching approaches and a fear of nonroutine demands made within the classroom.

An inability to relate an assignment to a given topic or to subsume it under that topic.

A tendency to fit new material into his own phenomenological field, that is, into his own interpretive outlook, instead of entering into the viewpoint of the speaker.

An unfamiliarity with the history, cultural fabric, and democratic ideals of his own country.

An unwillingess to read material in defense of a position to which the subject is hostile.

A resentment of intellectual discipline accompanied by a yearning for indefinite intellectual permissiveness.

A tendency to be stupefied with all contacts which involve *breadth of learning* as though something obscene were on public display.

Discomfiture with an unfamiliar vocabulary instead of curiosity over it and a desire to make it one's own.

No feeling for the eternal verities stressed by the humanities, no responsiveness to the power of literature, and no awareness of the tragic side of life.

An absence of a critical sense concerning social issues, a compulsive tendency to defend what he has been socially conditioned to believe, and a marked resistance toward developing the quality of *openness to experience.*

A stress on the cult of personality (choice of teachers and peer associates on the basis of affability, charm, physical presence, etc.) with love for learning conspicuously absent as a criterion.

The question may arise as to whether we have a right to expect the American high-school graduate to be free of these deficiencies. Some may feel that the elimination of these faults is the responsibility of college teaching as a whole. *I believe that the major functions of general education are to deepen and widen those virtues which are the opposites of these deficiencies,* but I suspect that higher education cannot be expected to *inculcate them.*

HIGH-SCHOOL RESPONSIBILITIES

Some high-school graduates, under the influence of good teaching, charismatic educators, or contacts with the powers of ideas, may change. There is always a small salvageable core and some may change after their first existential contacts with honest dimensions of feeling in literature, the humanities, and the arts.

The overwhelming majority of our high-school students, however, for whom these charges hold, will probably still be guilty of many of them by the time they finish college. Some intellectual habits, emotional stances, attitudes, values, and feeling tones are reversible only with great difficulty and at the price of an inner struggle which few of these students will be willing to make.

My conviction may be false that the initial inculcation of the virtues which are the opposites of these deficiencies is the responsibility of the American high school. It is difficult, however, to feel mistaken in the face of curricular objectives for the secondary school, spelled out in the plethora of material on this subject, which mention most of the virtues which are equivalent to the absence or the opposite of these deficiencies.

Can anything be done to reverse the tides in these directions? Yes. This is not the place to spell out the variety of curriculums and methods holding possibility for instituting some much-needed reform. However, among the movements which we can expect to foster such changes are: a renovated philosophy of general education, applicable to the high-school level; the enlarging movement for interdisciplinary approaches, which must be made relevant to secondary education; and the stress on a tough, combined humanistic-scientific education, such as those being tried by the Massachussetts Institute of Technology and the California Institute of Technology (strictly an activity of higher education, but its employment may help to counteract the undesirable results of secondary teaching).

If we can select an increasing number of teachers who live and feel the values and objectives of secondary education, who recognize how much more direction and molding can be produced for high-school freshmen as contrasted with college freshmen, and who have a genuine sensitivity to and respect for the life of feeling, our chances for beneficial change will be considerably increased. If teachers with a well-developed feeling for social values, as well as for the relevance of ideas, can be found, we can look forward to the beginnings of a much needed reform. •

Education for "Realization"

F. Edward Lund

In Teachers College Record

F. Edward Lund is President, Kenyon College, Gambier, Ohio. Reported from Teachers College Record, *LXIII (January 1962), 278–84.*

No nation can exist half-educated; and the fundamental question for the United States is not whether we can educate everybody up to his capacity. *We must.* A more fundamental question is how we can do this so that the humane and classic ideals of educating the individual are not debased into mere training—or degree granting.

Built into the accelerating tempo of the scientific revolution is solid assurance that there will never be a surplus of well-trained scientists and leaders. So a valid and honest concern for quality, granting its merits, should never become such a fetish that the education of plain, hard-working citizens will be neglected.

Avoiding the contradictions of quantity vs. quality, let me state categorically what I conceive to be the great threat to American higher education. In simplest form, it is that our colleges and universities are threatened with a loss of community. Education as dialogue carried on by a community of scholars, speaking a common language and eager and able to communicate with each other, is vanishing. On many campuses, education oriented toward a common body of knowledge divided into separate but neither contending nor discordant disciplines has already disappeared. Among the faculty, lacking the capacity to communicate, there is no basic agreement, no common purpose, and no acceptance of a common role; there is merely an indifference that passes for tolerance. Each specialist goes his own way indifferent to colleagues, contemptuous of most.

Only a most naive or callous person would ask, "So what?" Without community there can be no effective personality and no concept of value for the individual, faculty, or student. Education degenerates into a mumbo-jumbo. Probably it can never be completely dominated by teaching machines, punch cards, and aerial television, but certainly it will be gutless and thoughtless, consisting of teachers who do not wish to teach and students who have no wish to learn.

On all sides there are inexorable pressures: pressures of growth, for colleges must grow and grow; pressures of specialization—"publish or perish"—which narrow both vision and the need to communicate; and pressures to distill, dilute, and pulverize the body of knowledge.

There has always been some danger in our concept of education as a social ornament, but what we must all fear most is a very sacred cow. This sacred cow is the concept of education as a social or community service, "service" being an insidious substitute for thinking or intellect, and "social" being a generous disguise without dimension. This particular pressure on the college curriculum can be observed whenever a demand is made for a specially slanted course in American history, or for a larger supply of aviation mechanics, telephone repairmen, or even for better automobile drivers, berry pickers, or trapeze artists. Once a community brings pressure on a college in the name of "community service," that pressure is irresistible. Invariably there will be found a "liberal" educationist and either an obliging or destitute professor willing to set up a new stand.

The threat to higher education is that community service has displaced national service. The frame of reference and the scale of values are squeezed. This obscures the quest for truth and diminishes the quest for excellence or great ends. The portent to education can be observed clearly in other media which attempt to serve rather than to inspire: in athletic spectacles which pass for "sport"; in the exhausting sensationalism of movies; and television shows which rest their case on the argument of giving the public what it wants.

SENSE OF PURPOSE

What I would identify as the ineluctable ingredient in any great college, large or small, is a sense of purpose. This unity was formerly apparent even in the old normal schools, where it was expressed in the concern with and dedication to teaching, as distinct from scholarly accomplishments.

Without singling out any one particular type of college we may conclude that this concept of purpose possessed other manifestations. For one thing, better colleges invariably revealed a greater degree of faculty control (and concern) than is now the fashion—faculty direction over the curriculum, over selection, retention, and direction of students, and—yes—over the administration. Government, to be sure, as in every successful democracy, was achieved by compromises, many of which might be spurned today by the American Association of University Presidents.

Cynics will maintain that the ideals which bound such faculties together were largely mythical, frequently doctrinaire, and even religious; but they cannot deny the existence of a community of men who, fancying themselves as scholars, proudly insisted on a leadership role in academic affairs.

The common bonds of such educational communities rested on a unity of purpose which originated in the assumption that higher education is an intellectual process or at least a training accompanied by intelligent insights. It ended frequently in no more profound conclusion than a mild persuasion that the education of the intellect nourished the formation of character—often described in terms of austerity, religious conformity, even rationality. It is easy to scoff, but selfdiscipline, insight penetrating appearances, and an honest skepticism are still man's best hope. And in the academy, it is still possible to believe that while education is a quest for truth, facts in themselves are never enough.

As a man searches for truth, or Truth, he searches also for selfhood, and it is only in impoverished lives that this selfhood can be defined in terms of vocation.

The tragedy of our day rests in the fact that even youth can visualize the trap of our human predicament. This predicament, while sometimes amusing, is rarely dignified, for our lives become increasingly chaotic, impersonal, technical, and insecure.

Lacking any unifying purpose, colleges offer a surfeit of courses, and an endless education by and for degrees. And so the effect I'm commenting on: Many students are degree hungry, enrolling in "snap" courses, searching for status, serving time until graduation, repeating pat answers without ever being challenged to ask the great questions, and ineffectively rebellious.

What of the faculties? The truth is that between the faculties and administrations of most American colleges, within the faculties themselves, and even within identical disciplines, there is only the loosest sort of cohesion, even understanding; and even this is abstracted either by an allegiance to fictional unity, sometimes attacked as the Establishment, or most usually simply ignored.

GULF OF INCOMPREHENSION

The "gulf of mutual incomprehension" which separates student from teacher and colleagues within identical departments, but especially the men of science from the rest of us, is precisely the loss of a common language, of accepted definitions which convey a common meaning by which our educational role could achieve a unified purpose. Few professors in the humanities, for example, can understand a mathematician, although the laws of mathematics may well express the laws of the human mind. Even fewer will take intellectual liberties with a physicist. It is simpler to pay lip service to "understanding science" and thus avoid the issue that every educated man must first *know* science.

In today's world we must recognize that the problem of unification of the world and the problem of the integration of the individual are one and the same. It is just as important to master the Second Law of Thermodynamics as to know Shakespeare or Plato. C. P. Snow points out that asking "What do you mean by mass, or acceleration . . . is the scientific equivalent of saying, *Can you read?*" If this be true, and we add to the illiterates in English the illiterates in science, what proportion of our college graduates are educated—either for the world of today or the world of tomorrow?

Some may advocate surrender to our scientific "wizards that peep and mutter," but this is not yet an immediate peril. The more immediate danger rests in those colleges that pattern themselves on obsolescence, or who, thinking themselves small, strive for an ever narrower vocationalism which will shackle free men and destroy their intellect.

While we must never forget that social institutions outlive their usefulness and that change usually occurs some interval after its necessity becomes convincing, there are already encouraging signs. Most of the great institutes of technology, joined by the graduate professional colleges, have moved to offer a greater emphasis on the humanities. Faculty selfstudies in the better liberal-arts colleges have already reopened a dialogue and started the great debate. More and more scientists and men of letters are speaking out. And within the traditional sciences, as in all compartments of learning and departments of instruction, fixed boundaries are being crossed.

What the college of the future will be, no man can say; but the evidence appears to indicate that more—not less—will be expected of the student and that the specialist who is only a specialist will soon be recognized as a technician, not as an educated person.

If this should come true, then the revival of learning will keep pace with science, for the quasi-intellectuals will become more quasi and the bona fides of great learning more apparent. Within the "house of intellect" faculties will not merely play games together. They will speak out, and men will listen with respect, for these will be apostles of greatness who have "realized" a great heritage. •

- The administrative procedure in some colleges appears to be so complicated that few, if any, significant decisions can be reached in a normal life expectancy.—*Donald C. Stone.*

- To speak of a winning football team as part of university excellence is like lumping together the accomplishments of a philosopher and a performing bear.—Louis T. Benezet in *Saturday Review.*

- Colleges aren't strictly for geniuses. We can't afford to slam the door of opportunity in the faces of C-level high-school seniors, who will help make our country's future. We must fight for our average students.—*Arthur S. Flemming.*

The Theory of Sets Needs to Be Related

New Mathematics? For What Purpose?

PEGGY BROGAN

In Childhood Education

Peggy Brogan is Educational Consultant to The Midtown School, Los Angeles, California, and Director of The American Toy Institute, New York City. Reported from Childhood Education, *published by the Association for Childhood Education International, Washington, D.C., XXXVIII (January 1962), 230–36.*

THERE are curious rumblings in the field of mathematics. Quarrels between the intuitionists and the formalists are being heard in first-grade classrooms.

"Six-year-olds can compute in ways related to the Theory of Sets," the formalists are saying. To prove their point they are conducting experiments in which first-graders do such computing.

But where is the first-grade teacher in all this furor? Where is he to learn the Theory of Sets and other complicated mathematical theorizing? At present he cannot find aid in the usual manner; he cannot take an understandable course at a nearby college that will bring him up to date and he cannot buy an understandable book and engage in selfdiscovery. Such math courses have long lists of prerequisites—all of which a teacher must take before encountering the Theory of Sets if, indeed, the available college offers this theory. The few books available have equally long lists of unwritten basic assumptions regarding the underlying mathematical knowledge and understandings of the person about to read.

What is the teacher's role? Is he to wait until the mathematicians create new learning materials for children and new teaching goals for teachers? No. Sitting and waiting never have been and never can be the goals of teachers of curious, active children.

The important point is—while the intricacies of certain mathematical symbolizing may not be familiar to elementary-school teachers, there is much that is known by these teachers who are intimately involved in children's growing and learning. Just as the teachers can profit from what the mathematicians are saying, so the mathematicians can profit from listening to what the teachers have to say about sound and useful mathematical learnings for children.

Above all else, teachers know that children need to find or create certain reliable continuity between the physical aspects of life and the abstract or symbolizing functions. Unrelated to the physical facts of existence, mathematics can become a glorious escape—a world unto itself with laws and intriguing encounters. Related to physical existence, mathematics can serve as a humanly useful way for viewing arrangements of people, places, and things.

New information on the Theory of Sets or any other mathematical theorizing will fall short if children are not helped at certain significant times to relate grouping and regrouping of numbers to the actual grouping and regrouping in the world in which they live. Every time children come together and separate there is a mathematical formula underlying their action. Unless we learn to think of purpose and outcome of grouping and regrouping as a necessary part of the mathematical formula, we are not creating the continuity necessary to intelligent human existence.

To be useful to human beings beyond the point of fun, theoretical adventuring in numbers must at some point become practical adventuring in everyday events of the everyday world. Far too many people go to half-price sales, "saving" money they do not own, buying the $29 dress for $14.50 and feeling jubilant over the $14.50 "saved."

The arithmetic is right: $\frac{1}{2}$ x $29 =$14.50. How can it be that such a "right" looking problem fails to take into account that we don't even own the $14.50 supposedly saved?

The root of the matter is that all too often our mathematical formulas have failed to take into account the whole situation. Problem solving has become fragmented and partial, and in many instances such problem solving has trapped rather than freed the human beings using the formulations.

Think of some of the mathematical formulas underlying some of the current world arrangements. Simple one-to-one correspondence would tell us that something is awry in our ways for arranging the world's people in relation to necessary food. Too many children's hands reach out and come back empty. Too many hungry people suffer in a world where crops are ploughed under and land is left unplanted.

In the school—in the teacher's classroom—every time we distribute supplies or people we do it according to a formula. We owe it to children to invite them in on our thinking. Posted sign-up slips in the room which the children use to sign for their daily choices can be used to distribute fairly all supplies and favorite activities (such as using the swings). School stores operated in each classroom, with coupons given to all children for buying such items as paper, pencils, and crayons can allow the children to actually spend some of their parents' tax money to buy themselves good, practical, arithmetic experiences.

LEARNING ON A TRIP

Children can be taken on trips. Living is whole and real when a teacher and a group of children plan and execute a worthwhile trip. The children at the Midtown School in Los Angeles went on an apple-picking trip recently. Virtually the entire school went—the youngest child being three and the oldest seventeen. And mathematics was a real and live thing.

Of course, there were the ordinary learnings—counting, estimating, and measuring. But overarching and giving wholeness to everything was this wonderful opportunity for children to live some of the mathematical facts which are experienced by the people who produce our food. Everyone worked from the beginning to the end of each school day—reckoning with weather and other factors which are part of the mathematical formulas at play when food is harvested.

To make the experience whole and more real, the question of what to do with the earned money had to be considered. The general plan for this money had been arrived at before the apple-picking expedition. There was to be a "field trip fund." Since the money was actually coming in from sales, the general plan had to be made more specific. How were the profits to be divided? Would each group in the school receive an equal amount even though older groups were able to do much more through sales? Should field trip needs be taken into account—with more money from the apple fund going to the older children who take more complicated trips and therefore have greater need for money?

This problem has not yet been solved. Teachers and children are talking and figuring—trying to work out a humanly useful mathematical formula to underlie their division of money.

There is great challenge in the new mathematics. There is great challenge if thinking of new and more imaginative arrangements of numbers will help us to think of new and more imaginative arrangements of people and objects in a human-centered world. For example, intriguing though the Theory of Sets may be, this and other human formulations must eventually help us to do something about the two sets of people now on either side of the Berlin Wall. Or the sets of people gathering enough atomic power to end civilization.

It is obvious that we need people who can think in more versatile ways if the world is to continue. And it is hopefully probable that many of the newer practices in mathematics will help people to think in more versatile ways. But in our amazement over first-graders doing complicated kinds of numerical figuring, let us not forget a human-centered world. Let us set up learning environments and build curriculums wherein these first-graders, fourth-graders, and *all* children can be helped to create the significant and needed continuity between concrete and abstract factors so central to human living.

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A Tool to Increase Learning

Elementary-School Typing

FRANCES E. MERRILL

In Business Education World

TYPING instruction in the elementary school is now a reality. Presently taught on a small scale, we can expect it to increase as parents and teachers begin to realize that typing is a tool that increases learning efficiency in basic areas, particularly the language arts, and not a separate and distinct learning area. Resistance to curriculum expansion will be overcome as a result of that realization, and ways will be found to teach typing to younger pupils, probably starting in the fifth grade.

The concern of the high-school typing teacher should be to help in planning instruction for the lower level and to be willing to serve as instructor whenever possible. The evidence that typing can be valuable for elementary pupils is overwhelming, and the concern of the professional typing teacher now should be to see that the typing program in the elementary school is educationally sound.

My experience last summer in teaching typing to 72 children in fifth, sixth, and seventh grades at Drake University Summer Elementary School has convinced me of its value.

I believe that the principal objective of typing for children in the elementary grades is to develop a tool for composition and creative writing. Straight-copy writing has little room in this course. A few simple sentences that stress common words and develop word patterns are useful. The children in my fifth and sixth grade classes were more interested in the original writing they could do than they were in copying something, even for the purpose of determining their speed.

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I did not use a textbook or any duplicated material, but I did use the blackboard freely. I taught the home keys first, then presented the other letters in random order while asking the class for words that would use the new letters. The children were far more daring than I would have been in suggesting new words. They offered words of several syllables, "saddening," for example, rather than "sing," when I was developing the pattern for "ing."

A belief common among those objecting to typing in the elementary grades is that children's hands are not large enough to operate the keys efficiently. Of course, there is a great range of size and physical development, but my experience showed no more difficulties than with high-school students and adults whose hands are not flexible and are not accustomed to separate finger movements. Some modifications of reach and position, particularly in using the shift keys, were permitted for the very small children.

USE OTHER MATERIALS

Typing presents many opportunities for the children to use other materials. Spelling provides an excellent drill because the children become aware of changes from printed words. In my classes, some of the children gave speeches and then typed them. Others wrote "thank you" letters to guest speakers and tabulated lists they wanted to keep in their notebooks.

The amount of time given to typing instruction at this level is a topic requiring further study. From my summer-school experience I am satisfied that the 500 minutes (20 minutes a day for five weeks) were not sufficient for a regular typing course. The length and frequency of class sessions actually will probably be governed by the local situation.

The typing teacher in the elementary and intermediate grades should be trained and should be familiar with the psychology of learning to type. The children recognize teaching competence and show respect for skill development in proportion to competence of the teacher.

Typing must be taught as a tool to make composition, creative writing, spelling, etc., easier, neater, and more attractive. It should not be considered an isolated skill for the sake of the skill itself.

No child should be permitted to think of the typewriter as a plaything. As he learns correct methods, his efficiency will be increased and he will appreciate the typewriter as a delicate machine for expressing his ideas.

PROBLEMS FOR THE TEACHER

Typing in the elementary school is going to create some problems for the teacher of vocational typing at the high-school level. Remedial skill training and speed training will become more important in the high-school course. New procedures and materials will be necessary to develop the skill and habits required to produce typed material that will meet business standards. Separate sections for advanced students should be provided.

Rather than being a handicap, typing in the junior-high school and in the intermediate grades might make it possible to reduce the number of elementary typing sections needed at the high-school level, and also might make it possible to develop vocational skill in one semester. The time saved could then be devoted for office practice and other training. •

Recommendations for Economic Education

In Economic Education in the Schools

Reported from Economic Education in the Schools, *a summary of the report of the National Task Force on Economic Education, published by the Committee for Economic Development, New York City, 1961.*

IN July 1960, a National Task Force on Economic Education, composed of five of the nation's outstanding economists and two of its leading secondary-school educators, was announced by the American Economic Association and the Committee for Economic Development. The primary mission of the Task Force was to describe the minimum understanding of economics essential for good citizenship and attainable by high-school students, the main object being to provide helpful guidelines for teachers, administrators, and school boards.

This article summarizes parts of the full report of the Task Force. The full report paints a disturbing picture of the absence of economic teaching in our high schools, the only place where we can be sure of reaching the citizens of tomorrow.

We face economic problems in our day-to-day lives at every turn—in public and private affairs—and at every level—national, state, and local. Yet the vast majority of students graduate from high school without the economic understanding necessary to comprehend such problems and to reach reasoned, independent judgments on them.

While excellent teaching of economics occurs in some schools, few high-school students ever take a course in economics; textbooks and teaching materials are often inadequate; and most teachers are not prepared to teach economics effectively.

Too often teachers use their own points of view to give students "answers" to economic problems raised, rather than leading students to independent analysis and judgments.

We cannot count on the colleges to fill the gap. Less than half of our future citizens go on to college, and only a quarter of those who do ever take a course in economics. Thus, for the foreseeable future, we must rely on the schools to provide training in economic understanding for most future citizens.

Being fully aware of the disagreement as to whether the economic understanding needed for effective citizenship can be taught in the high school, the Task Force believes that it can be and should be for most students above the lowest ability levels, if schools are willing to devote a full course, or its equivalent, to economics.

The following must be a part of the program:

The most important step, as in other branches of knowledge, is the replacement of emotional, unreasoned judgments by objective, rational analysis. Economics is a rational way of thinking about economic problems, not a party line or a set of "answers."

Students should be given a good overview of the way our economic system solves the basic economic problems. These problems are: What shall we produce with our productive resources? How much can we produce in total and how fast shall the economy grow? Who shall get the goods and services produced? These are the big questions faced by every economic system, be it capitalist, communist, or any other.

In understanding the operations of our economy, it is important for students to see that individual freedom of choice is central to our "free enterprise way." They also need to understand that these individual freedoms, of the consumer and of the businessmen, are limited by laws and by social and moral pressures, for the protection of the individual and society. To achieve the understanding essential to citizenship, students need to grasp a few simple analytical concepts, a few major economic institutions, and the main economic relationships—not an elaborate set of technical terms, abstract theory, or detailed masses of factual information.

Finally, students should be helped to a general impression of how other types of economic systems operate, especially communism. Fear of dealing with controversial subjects should not be permitted to exclude objective discussion of this topic. The broad questions—what, how much, and for whom—provide a framework for comparing other systems with ours.

The Task Force believes that steps can and should be taken in the schools to assure this minimum level of economic understanding for every high-school graduate, despite the many competing claims for school-curriculum time. To this end, the following are recommended specifically:

SPECIFIC RECOMMENDATIONS

More time should be devoted to development of economic understanding. Wherever feasible students should take a course in economics in high school; and in all high schools of substantial size there should be at least an elective senior-year course in economics. Where economics is not required, courses in problems of American democracy (now taken by approximately half of all high-school students) should devote a substantial portion of their time to developing economic understanding. More economic analysis should be included in history courses, which are taken by nearly all students. Business-education curriculums should include a required course in economics. Development of economic understanding should be emphasized at other advantageous points throughout the entire school curriculum, beginning in the lower grades.

Important recommendations concerning course content are: Major emphasis should be placed on an objective, rational way of thinking about economic problems, as well as on knowledge of fundamental economic institutions and concepts for analyzing economic issues. Objective examination of controversial issues should be included in the teaching of economics as an important part of helping students develop the ability to reach their own conclusions on important social problems. School boards, administrators, and the public should support the right of students to this educational experience.

In the area of instruction, the following recommendations are made to improve teaching of economics in the schools:

That at least a one-year college course in economics be required for certification of all new social-studies and business-education teachers.

That school boards and administrators consider this certification requirement as a minimum. In addition, wherever feasible at least a minor (18 units) should be required for those teaching special high-school economics courses.

That in all large high schools there should be at least one teacher with a college major in economics, both to teach in the area and to advise other teachers who lack adequate preparation in economics.

To strengthen the economic competence of teachers, it is recommended that increased use be made of summer workshops; that administrators encourage social-studies teachers to participate in the nation-wide television course in economics being planned for high-school teachers in 1962-63; and that, whenever possible, teachers return to college for additional work in economics.

It is also recommended that colleges preparing teachers improve the courses in economics they offer for potential teachers; that they recognize the special problems of present teachers who have had no economics; and that they consider establishment of extension courses, special centers, and workshops designed to aid such teachers.

Other recommendations include: that steps be taken by private publishers, foundations, and others to increase the supply of more effective teaching materials; that professional economists, individually and through their professional associations, take a more active role in helping to raise the level of economic understanding in the schools; and that individual citizens, business firms, labor unions, farm organizations, and other influential groups take responsibility for supporting expanded teaching of economics in an objective way in the schools. •

Language Arts in the Elementary School

HELEN K. MACKINTOSH

In Educational Leadership

ANY program in the language arts should be geared to the needs of the learner. Yet how are the needs of the learner to be defined now and in the next decade? The answer depends on the person providing the definition.

Over a period of time teachers have moved from a point where they have taught separate subjects such as spelling, handwriting, reading, literature, and oral and written expression, to a situation in which they teach children to listen, to speak, to read, and to write in relation to the activities of the school day.

All children need to develop into individuals who can contribute in many ways to their society. They must be able to feel, listen, read, think, understand, believe, express ideas, and in so doing to develop to the full extent of their ability in all aspects of living. It is such an approach as this that can result in a modern program in the language arts.

In that context, the following will be a discussion of new developments and factors working an influence on language arts today.

In language arts, there is relatively little new subject-matter content in comparison with the areas of science, mathematics, and social studies. However, television has had an important impact on children. Children today are learning many things outside the school that influence their ideas and behavior. Studies revealing the large amount of time spent in watching television indicate that television is a powerful agent in this respect. Some writers indicate that TV is probably the one common experience which children bring to school. It is likely that children not only acquire ideas from TV but that their habits of listening, speaking, and reading are also affected by what they see and hear.

Helen K. Mackintosh is Chief, Elementary Schools Section, U.S. Office of Education, Washington, D.C. Reported from Educational Leadership, *XIX (February 1962),* 290–93.

In some schools, middle-grade children are encouraged to plan and carry out a selfsurvey of their own TV viewing and listening habits and those of all children in the school to evaluate types of programs selected and amount of viewing time per week. Children themselves make recommendations as a result of such studies. Such a project represents a purposeful use of many of the language-arts skills.

Listening is a relatively new skill to be included in curriculum guides, although research dates back to 1928. Teachers realize that children must be helped specifically in developing listening skills, but have done less in this respect than with speaking, reading, and writing. In *Language Arts in the Elementary School,* Ruth Strickland lists nine levels of listening, ranging from little conscious listening to listening with a real meeting of the minds. The listening skills need emphasis in every year of the child's school life.

In the area of speaking, new developments have come about, not in the content, but in the use of the tape recorder. Children read or speak to the recorder and listen to their performances as a basis for discovering needs for improvement. Recordings made at intervals throughout the school year can be used both with children and with their parents to show progress.

INDIVIDUALIZED READING

Individualized approaches to reading are in today's spotlight. The idea is not new; it dates back to the early 1920's. Teachers have described their varied ways of developing an individualized program in many educational magazines.

In developing an individualized program, the teacher's procedure depends on a number of factors: ability to organize, ability to work with children, size of the group, previous experience of pupils, knowledge about books of varying difficulty and different interest appeal, and availability of such books.

Opinions differ on whether trade books alone should be used in the individualized program, or whether reading textbooks also have a place. The teacher has conferences with each individual pupil at intervals to evaluate progress and to record accomplishment. Since reading is a highly personalized experience, the individual approach has much to commend it.

Because of increasing interest in development of skills, literature and recreational reading have often been neglected. In the past 10 years teachers have used these aspects of reading as a springboard to creative writing.

Developments that lie primarily in the future are in the field of linguistics. Secondary schools are feeling the impact of this relatively new concept, but elementary schools scarcely at all.

Stated simply, linguistics is concerned with the science of language. As Paul Roberts states, the reason for linguistics is "to develop a feeling for the structure of language." Such a concept is expected to displace grammar eventually as a basis for understanding the relationship of words as they are used to express meaning.

Two of the most persistent questions concerning language arts in the elementary-school program are: Should each elementary-school staff have a specialist in language arts? And, if each teacher does not come prepared as a specialist, what sort of in-service program can educate the new staff member, and often the teacher long in service, to improve skills in communication, and to help children do the same?

The use of a specialist to many persons means a return to a departmentalized organization of the elementary school, particularly in the middle grades. In the common interpretation of departmentalization, the specialist stays in his classroom and the children travel from teacher to teacher.

An historical review of departmentalization shows that it has been tried and dropped many times, usually with a new name attached each time it appears. Some disadvantages in this plan are a lack of balance in the program for the child, and the development of subject-matter learning in separate compartments. In any case, it is desirable that a consultant or supervisor with competency in language arts be available to help teachers needing assistance.

One of the best ways to help teachers to improve on the job is to organize and conduct cooperatively workshops that enable teachers to concentrate on their own problems.

Language-arts workshops vary in length from a day to two weeks. They may be held at any time during the school year, at night, or in the summer, to suit the convenience of teachers. It is desirable to have a planning committee consisting of teachers, principals, and supervisors which considers possibilities and makes decisions. Talks, work groups organized by grade levels or interests, panels, buzz groups, and individual projects all have a place in a good workshop program.

Continuing study of curriculum problems; studies which enlist teacher participation in surveys of practice in various aspects of the language arts; production of materials for classroom use; and publication of articles are only some of the other experiences in which teachers engage to improve their competencies. •

WHILE many American youngsters do not know how to spell very well, they have one characteristic to get their ideas across in writing—initiative! In a study conducted for Science Research Associates, Inc., Donald H. Parker administered a test last spring to 1,137 sixth, seventh, and eighth grade students. He discovered that when pupils are confronted with the need to write a word they don't know how to spell, they will often invent or create a spelling and hope it gets by. His results show that they had invented 50 different ways to spell *calendar,* 59 different ways to spell *require;* 64 ways to spell *fortune;* and 160 different ways to spell *universal.*

Effective in Improving the Quality of Education

The Elementary-School Library

HELEN HEFFERMAN

In ALA Bulletin

PERSONS concerned with the quality of education today should look searchingly at the library resources of their community. Is the public library adequately supported? Does the children's room have a qualified librarian and a steadily renewed literary fare to tempt the appetite of the young?

All education does not take place in home or school. The service provided to children by a well-equipped library makes a substantial contribution to their present education and to their lifelong search for knowledge and its discovery in books.

Although it is important, the service to children of an effective public library is not the same as that of the library in an elementary school. The elementary-school library augments the experience the curriculum provides. The interests and skills of pupils in reading are extended through opportunities for wider reading than textbooks provide. The library expands children's growing interest in literature under the guidance of a person trained in the content and methods of challenging children's interests.

An effective social-studies program is dependent on the availability of a well-stocked library for a research center. Exploration of any broad curriculum unit in social studies requires access to a carefully selected and classified picture file, current children's and adults' newspapers and magazines, suitable factual books, books of related fiction, atlases, encyclopedias, and geographical dictionaries. Any attempt to carry on a vital social-studies program without library facilities available will result in disappointment and frustration on the part of teachers and children, and parents will feel that the program is inadequate.

Although leaders in the field of elementary-school science insist that the emphasis must be on scientific principles and structure, many children turn eagerly to the books qualified scientists have written about each of the science disciplines for a children's audience. The acquisition of science books by elementary schools has been accel-

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erated greatly by the National Defense Education Act, which permits the purchase of books for children as part of the science projects of individual school districts.

Nothing less than a library collection of authentic, carefully chosen science books will meet the need of the inquiring minds of children whose questions recognize no boundaries. There is no substitute for a large, growing collection, carefully updated, if science programs are to prepare children to live in the age of science.

SERVES EVERY FIELD

Every field in the curriculum is served by the elementary-school library. The bulletin board may contain material on nutrition, with a collection of books designed to further a child's interest in the relation of nutrition to physical fitness and health. Pictures of children in other groups playing different games lead children to a collection of books in which games and sports of other lands have been marked.

Children with special interests in art and music will find that the library caters to their needs. Reproductions of masterpieces are in the picture file. Stories of operas, biographies of artists and musicians, books about ballet—all are available. Listening posts are provided in many libraries so children can explore the world of music without disturbing others. In products of the bookmaker's art, children interested in illustrations will find the work of our finest artists.

If children are to make creditable progress in their subsequent education, they must learn early how to use such library tools as card catalogs, encyclopedias, atlases, and almanacs. Independent use of library resources is a skill which must be learned. Without such training and experience, a child will be handicapped in tackling difficult tasks during his subsequent education.

But a collection of books in a room does not constitute a library. To be effective, the library must be staffed by a person qualified primarily to work with children and their teachers and secondarily with books. The curriculum demands on the elementary teacher are stupendous. The classroom teacher needs support from the librarian in selecting materials to implement new programs of individualized reading, finding the right books for 30 different burning interests in science, and collecting materials to launch a new study of a subject currently in the news.

I join the critics in urging improvement of the quality of education, but some of the panaceas offered to achieve this end should be questioned. Providing a good school library may not be as exciting as "getting tough with the kids" or pushing geometry down into the kindergarten, but no one who has taken the trouble to go and see children at work in an elementary-school library will doubt its effectiveness in helping education move forward. ●

★ With Education in Washington ★

THE EDUCATION DIGEST WASHINGTON BUREAU

New USOE.—The *Congressional Record* published a number of impassioned speeches a year ago when the HEW Department issued "A Federal Education Agency for the Future," the report of an internal group assigned to recommend changes in the U.S. Office of Education. Some Congressmen cried that the publication was "a blueprint for federal control."

But hardly a word, either of praise or blame, greeted Commissioner Sterling M. McMurrin's administrative orders putting into effect as of the start of this month nearly all the changes recommended by last year's controversial document. The former philosophy professor, with no previous administrative experience, has thus quietly eased the USOE around a major turning point—its first reorganization since 1944.

The federal interest in education has grown greatly since then. The long-sought grants for school construction have not yet been voted, but the legislative battle itself has focused attention on the USOE's lagging performance of its original function: fact-finding. As a result, this service has been steadily enlarged, as have the comparative education studies and exchange programs of the Division of International Education.

The USOE's grant programs, once virtually limited to vocational education, federally affected areas, and land-grant colleges, have been expanded by the NDEA to include research, guidance and counseling, laboratory and classroom equipment, fellowships, and summer institutes. The new Manpower Development Act alone will nearly double USOE funds for vocational education and training.

To cope with this growth, Commissioner McMurrin's reorganization leaves working-level units of the USOE untouched but arranges them in a new pattern, according to the job they do rather than the group of educators they deal with. "One major advantage of the reorganization," Commissioner McMurrin has said, "is the consolidation of elementary, secondary, and higher-education program units within a single bureau. This will strengthen the ability of the Office to coordinate established programs involving more than one level of education."

Three Bureaus.—The reorganization establishes three bureaus for program operations, each headed by an Associate Commissioner, a new title, who reports directly to the Commissioner. The bureaus are: Educational Research and Development, International Education, and Educational Assistance Programs.

The Bureau of International Education includes the functions previously carried on in the Division of International Education. Instead of three sub-units, it is now divided into a Division of International Education Studies for comparative studies, and a Division of Technical Assistance and Exchange Programs for administration of teacher-exchange activities and overseas technical assistance programs that involve education.

Educational R & D.—The new Bureau of Educational Research and Development consolidates the functions of the former Division of Statistics and Research Services with the professional research and development activities previously carried on by the Divisions of Higher Education and State and Local School Systems. The R&D Bureau includes five divisions, as follows:

The Division of Educational Statistics will administer the program of recurring statistical studies and will furnish various statistical services to the other units in the Office. The Division of Educational Research will handle the research and demonstration activities authorized under the Cooperative Research Act of 1955 and Title VII of the National Defense Education Act.

The Division of Higher Education will continue the professional consultative and research activities of its predecessor, and the Division of Elementary and Secondary Education will continue activities previously performed in the Division of State and Local School Systems. The Division, however, will place more emphasis on programs for the education of children with special needs.

Establishment of a new Division of Continuing Education and Cultural Affairs acknowledges the growing importance of adult education and the close relationship between education and the arts. "The role of the schools in developing the interests of its students in cultural affairs will be a major subject for examination by this Division," according to the Commissioner.

Financial Aid.—The new Bureau of Educational Assistance Programs brings together the USOE programs concerned with, or based on, financial assistance. It is claimed that this arrangement will make possible greater consistency in policy and administration and will facilitate efforts to simplify regulations and administrative requirements in relations with states and institutions of higher education.

A Division of Vocational and Technical Education based on the present Division of Vocational Education will place greater emphasis on technical training and retraining in vocational-education programs. The Division of School Assistance in Federally Affected Areas that administers the programs for school districts substantially affected by federal employment, authorized under Public Law 815 and Public Law 874, has been moved to the new Bureau.

A new Division of State Grants will administer Titles III and V-A of the National Defense Education Act, and a new Division of Institutional Grants will administer those financial support programs authorized under the National Defense Education Act that involve primarily institutions of higher education.

Commissioner's Office.—The major units within the Office of the Commissioner are now an Office of Information, an Office of Administration, an Office of Field Services, and an Office of Legislative and Program Planning, one of whose functions is to survey the effect of the various federal programs on all levels of education. This is now being done extensively only in higher education.

The Office of the Commissioner will include a National Panel of Consultants to the Commissioner, composed of persons of the highest competence in various fields of importance to education who will be available for consultation individually or in small groups. The Commissioner also plans to employ some persons from academic disciplines outside the field of professional education. For example, economists, sociologists, and psychologists will be employed from time to time to help study such problems as juvenile delinquency and school dropouts.

Though he diplomatically has not mentioned the year-old report of the Study Group on Mission and Organization of the USOE, Commissioner McMurrin's reorganization accomplishes nearly all the changes it recommended. For good or ill, then, primary responsibility for the future effectiveness of the Office must rest with the largely unsung members of the Study Group: Homer D. Babbidge, Jr., chairman, Rall I. Grigsby, vice-chairman, and Lane C. Ash, David Clark, Thomas E. Cotner, Charles P. Dennison, Herbert Espy, Ralph C. M. Flynt, Arthur L. Harris, John F. Hughes, John G. Lorenz, and B. Harold Williams.

Teachers' Taxes.—The new federal income tax drafted by the House Ways and Means Committee, the most significant revision since 1954, is not expected to alter the position of the Internal Revenue Service with respect to educational expenses incurred by teachers.

As we read the IRS rulings (Reg. Sec. 1.162-5; T.D. 6291; Rev. Rul. 60-97), the government's position is this: A qualified teacher may deduct educational expenses in calculating federal income tax provided that the expenses were incurred to meet requirements set by the employer or the state as a condition of *retaining* salary, status, or employment, or if these expenses were voluntarily incurred to improve the teacher in his present position.

On the other hand, educational expenses are *not* deductible if they are incurred to prepare for the profession, to meet the minimum qualifications for a position, to fulfill general educational aspirations, or to satisfy any personal purpose. In general, then, the tax laws assist you if you study to stay where you are professionally, but not if you strive for occupational advancement.

But if you choose educational travel, instead of college attendance, to fulfill your school board's requirements, you may well have trouble deducting your travel expenses. The Tax Court ruled favorably more than a year ago in the case of one teacher who went to Europe for this purpose (Sanders v. Commissioner) but the IRS has not yet issued a ruling to make clear its policy on these deductions. In the absence of such a ruling, individual IRS agents are often reluctant to permit these deductions, since a court decision in the tax field does not necessarily bind the IRS.

Travel expenses are an example, then, of educational expenses that may not be deductible even though incurred to retain present salary, status, or position. In contrast, scholarships and fellowships are excludable from taxable income if they lead to a degree, i.e., improvement of salary, status, or position. Thus what IRS says, in effect, is that if you are given money to improve your educational attainment, you get a tax advantage, but if you spend your own money to achieve the same end, you don't.

"The concept that every American deserves the opportunity to attain the highest level of education of which he is capable is not new to this administration," President Kennedy said at the start of his recent special message to Congress on education. "It is a traditional ideal of democracy. But it is time that we moved toward the fulfillment of this ideal with more vigor and less delay."

The President specified in his message a number of ways in which Congress could "move toward the fulfillment of this ideal," but tax revision was not one of them. Apparently Congress is ready to appropriate millions for retraining unemployed workers but not to forgive a few income-tax dollars when a teacher voluntarily prepares for a new field or a more responsible position.

Wiring Washington.—If you want your opinion on this or any other public issue heard in Washington, take advantage of Western Union's new Personal Opinion Message. You may wire your views, in your own words, to your Representative or Senator, the President or Vice-President, for only 75c from any part of the nation. Your message must not exceed 15 words but you may also sign your name and address or the group you represent.

These convenient messages may be sent from any Western Union office or telephoned and charged to your telephone bill. For those who don't know the names of their Representative and Senators, Western Union will address these wires to the proper individuals. •

• Educational News •

CHANGES IN SUPERINTENDENCIES:

Malden, Mass.: **Paul H. Phaneuf,** formerly superintendent at Dracut, Mass., is now superintendent.

Benton Harbor, Mich.: **Albert C. Johnsen,** formerly superintendent at Willow Run School District, Ypsilanti, Mich., is now superintendent.

Texarkana, Tex.: **H. L. Lamb** has been named successor to **Dale E. Howard,** resigned.

Winston-Salem, N.C.: **Marvin Ward,** formerly assistant superintendent, has succeeded **A. Craig Phillips,** who has been named superintendent of the Charlotte-Mecklenburg schools.

COLLEGE PRESIDENTS:

New Mexico Western College, Silver City: **J. Cloyd Miller,** president for the past 10 years, has announced his retirement in June.

Marietta College, Ohio: **W. Bay Irvine,** president since 1948, has announced he will retire in August 1963.

City College of New York, N.Y.: **Buell G. Gallagher,** who resigned as president last June to become first chancellor of the California State College System, has resigned that post and is now back in his former position at City College.

TEACHER-TRAINING INSTITUTIONS:

Michigan State University, East Lansing: **William B. Hawley,** formerly assistant dean of the college of education, has been named acting dean, succeeding **Clifford E. Erickson,** now provost of the university.

University of Bridgeport, Conn.: **Carlyle G. Hoyt,** formerly superintendent, Highland Park, Mich., is now professor of education and department chairman.

OTHER CHANGES AND APPOINTMENTS:

Warren C. Lovinger, president of Central Missouri State College, Warrensburg, Mo., is the new president-elect of the American Association of Colleges for Teacher Education.

John H. Fischer, dean of Teachers College, Columbia University, has been elected president of the Educational Policies Commission, succeeding **Benjamin C. Willis.** New members on the Commission are **Samuel M. Brownell,** superintendent at Detroit, Mich.; **Arthur F. Cory,** executive secretary of California Teachers Association; **Clarice Kline,** high-school teacher at Waukesha, Wis.; and **Irby B. Carruth,** new AASA president, who replaces outgoing AASA president **Benjamin C. Willis.**

George Collings, associate professor of education, University of New Mexico, has been named to tabulate the nation's educational resources for the President's Office of Emergency Planning, U.S. Office of Education.

RECENT DEATHS:

Bernice Gestie, editor for 25 years, *Minnesota Journal of Education,* and a former president of the Educational Press Association of America.

Wesley G. Miller, superintendent, Jamestown, N.Y. since 1958, at 48 years of age.

William Pratt Graham, who headed Syracuse University from 1937 to 1942, at the age of 90.

Winfred George Leutner, president of Western Reserve University, Cleveland, Ohio, from 1933 to 1949, at the age of 82.

Thomas Diamond, nationally known authority on vocational education and professor emeritus, University of Michigan, at the age of 81.

Reading Reform?

ATTENTION of reading teachers and reading specialists is called to an announcement of another new reading organization—The Reading

Reform Foundation, whose announced purpose is to "spearhead the national movement to restore the alphabet to its proper place as the basis for elementary reading instruction in English."

The newly created Foundation, with offices at 36 W. 44th St., New York City, was founded by Watson Washburn, New York attorney, who was elected first president of the organization; John P. Humes, New York City; Lithgow Osborne, Auburn, N.Y.; and Coleman Jennings, Washington, D.C. The Advisory Council of the Foundation includes Arthur Bestor, Rudolph Flesch, Mortimer Smith, Mrs. Van Wyck Brooks, John Dos Passos, Joseph Wood Krutch, Arter S. Trace, Jr., Edward Streeter, Douglas Bush, Edith Hamilton, Samuel Eliot Morison, and Charles C. Walcutt.

The program is dedicated, according to the announcement, to "cutting out the 'cancer of configurationism' and restoring the 3,000-year-old alphabetical method of learning to read."

Ford Comprehensive Grants

THE Ford Foundation in March announced its first two grants for comprehensive, coordinated efforts to improve all levels of education throughout entire school systems. The grants, of $266,000 and $200,000 respectively, were made to the Newton, Mass., and the Norwalk, Conn., schools.

The grants, according to Clarence H. Faust, vice-president of the Foundation, will "support the application from the kindergarten through the twelfth grade of the full range of constructive innovations in American education during the past 10 years. What has heretofore been educational experimentation on a limited scale—at particular schools or grade levels—will become in Newton and Norwalk the predominant system-wide patterns."

The Foundation also announced in March a $500,000 grant to the University of Wisconsin for a statewide expansion of its experimental program in the preparation of school teachers. The expanded program will involve 33 school systems, nine state colleges, and several private colleges.

Grouping Study

MERELY grouping elementary-school pupils by ability, without deliberate changes in instructional content, is largely a waste of time, according to the results of a study made by Teachers College, Columbia University, in cooperation with the New York City Board of Education.

The study was carried out in 45 New York City elementary schools. Approximately 2,200 pupils, organized into 86 classes and 15 grouping patterns, were studied through the fifth and sixth grades from 1956 to 1958. The pupils were divided into five ability levels.

From the study, the results of which were announced in March, Miriam L. Goldberg, director of the project, concluded that ability grouping by itself did not have any positive affect on the academic attainment of fifth-grade and sixth-grade pupils. Gains in achievement were influenced more strongly by teacher and group differences, in individual classrooms, than by the presence or absence of gifted pupils, the range of ability in the class, or even by the intellectual ability of the pupils.

To Resist Censorship

THE American Library Association, in an effort to resist book censorship in schools and libraries, has adopted a statement to help guide educators and librarians.

The statement, entitled "How Libraries and Schools Can Resist Censorship," was adopted by the policy-making body of the Association, the ALA Council, at its annual midwinter meeting in Chicago in February.

The statement calls for a definite book selection policy. A file recording the basis for each decision should be kept for titles likely to be questioned or apt to be considered controversial, it states.

The statement also calls for clearly defined methods of handling complaints and efforts to establish good lines of communication.

"If an attack does come," the statement declares, "remain calm; don't confuse noise with substance . . . Take immediate steps to assure that the full facts surrounding the complaint are known to the administration . . . Seek the support of the local press immediately . . . Inform local civic organizations of the facts . . . Defend the principles of the freedom to read and the professional responsibility of the teachers and librarians, rather than the individual book."

Copies of the statement can be obtained from the American Library Association, 50 E. Huron St., Chicago 11, Ill.

Independent Merger

THE two major national organizations of independent schools have approved a merger. The new organization, the National Association of Independent Schools, Inc., will combine the purposes and activities formerly carried on by the National Council of Independent Schools (NCIS) and the Independent Schools Education Board (ISEB).

The new association will have an initial membership of more than 700 schools in 40 states, with total enrolments of nearly a quarter of a million pupils.

The administrative head to direct the program of the NAIS will be named later. Francis Parkman, executive secretary of the NCIS, and Esther Osgood, executive secretary of ISEB, will continue on the staff of the NAIS.

Shared Time Proposal

"SHARED TIME," an arrangement under which pupils in Catholic parochial schools take some of their school work, such as math, science, foreign languages, shop, in public schools is being actively considered by religious and education leaders as a possible means of settling the controversy over the church and state issue arising in connection with any proposal for federal aid to education.

Education U.S.A. reports that the proposal is receiving favorable consideration from leaders in Catholic education. The proposal also was discussed in February at the National Council of Churches conference on religious education in St. Louis and at the AASA convention in Atlantic City.

Harry L. Stearns, superintendent at Englewood, N.J., who first advanced the plan last fall, has written a revised description of it for the Religious Education Association, 545 W. 111st St., New York 25, N.Y. Copies are available for 35c from the Association.

Teaching Machine Survey

THE first major survey of the new teaching machine industry, recently completed by the Technological Development Project of the NEA, reveals that there are approximately 90 selfinstruction teaching devices now in production by 65 companies. The survey also turned up 630 programed courses which either fit into the machines or are produced in book form.

The machines themselves range from $150,000 models used to train postal employes to $4.95 toys which were on the market last Christmas. No attempt was made to evaluate either the machines or the programs, according to James D. Finn of the University of Southern California, who heads the project.

Record Bond Year

SALES of new issues of school bonds to finance public elementary and secondary schools in this country set a new record in 1961, aggregating more than $2.4 billion on the basis of preliminary tabulations by the Investment Bankers Association of America. This is the largest amount of school bonds that has ever been sold in a single year, the Association states.

DATES OF THE MONTH:

April 6-10, American Association for Health, Physical Education, and Recreation, Cincinnati, Ohio.

April 8-14, National Library Week.

April 12-14, National School Boards Association, St. Louis, Mo.

April 15-18, National Council of Teachers of Mathematics, San Francisco, Calif.

April 16-19, American Industrial Arts Association, Pittsburgh, Pa.

April 16-19, American Personnel and Guidance Association, Chicago, Ill.

April 22-27, Association for Childhood Education International, Indianapolis, Ind.

April 24-27, National Catholic Educational Association, Detroit, Mich.

April 24-28, Council for Exceptional Children, Columbus, Ohio.

DATES OF THE COMING MONTHS:

May 20-23, National Congress of Parents and Teachers, Portland, Ore.

June 26-29, American Home Economics Association, Miami Beach, Fla.

July 1-6, National Education Association, Denver, Colo.

Guidance in the Junior High School. Harold F. Cottingham and William E. Hopke. Bloomington, Ill., McKnight & McKnight Publishing Co., 1961. Pp. ix + 390. $6.00.

Devoted to principles and practices of guidance functions in junior-high schools throughout the country, this book structures a philosophical framework then details workings of an organized guidance program. Examples of outstanding practices in specific junior-high schools are given to illustrate application.

There are 15 chapters spanning a range from a brief introduction on the philosophy, development, and functions of a junior-high school to current trends and future developments in junior-high-school guidance. The content of each chapter is summarized and there are discussion questions and bibliographies for each chapter. The book is designed to serve as a text and reference book for counselor education and as a guidebook for counselors in the field.

Harold F. Cottingham is head of the department of guidance and counseling, and William E. Hopke is a professor, school of education, Florida State University.

The Search for a Common Learning: General Education, 1800-1960. Russell Thomas. New York: McGraw-Hill Book Co., Inc., 1962. Pp. x + 324. $6.95.

This, the 11th book in the Carnegie Series in American Education, attempts to place general education in college in a historical context to make the diversity intelligible and to highlight the unsolved problems.

The author, who is a professor of humanities at the University of Chicago, in Part I discusses the historical background of general education in American colleges from 1800 to 1930, describing the social forces and changing character and aims of the American college, and emphasizing the problems of general education in the context of the growth of the public school system and the universities.

Part II is devoted to contemporary thought and practice in general education as represented in the academic programs of 18 colleges and universities. In his analysis, Russell stresses methods each of the 18 institutions employ to solve the recurring problems of general education, giving attention to problems of: content, amount of time, relationship of college work to precollege work, and approaches and organizational plans for achieving the goals of general education.

Secondary Education in the United States. Lindley J. Stiles, Lloyd E. McCleary, and Roy C. Turnbaugh. New York: Harcourt, Brace & World, Inc., 1962. Pp. xii + 528. $6.95.

This is a comprehensive treatment of contemporary secondary education in the United States. Not an introductory text, the material is presented with an assumption that the reader has a substantial acquaintance with secondary education.

The book is organized in five parts: The Setting; Purposes and Functions; Organization and Program; Human and Physical Facilities; and Current Concerns in Secondary Education. References listed at the end of each chapter are designed to aid and encourage further study of ideas and problems rather than as documentation for chapter content.

Concerned throughout with secondary education today, the authors are optimistic about the future. They present analyses of issues, data pertinent to key questions, ideas for strengthening programs, and guides to understanding and interpretation of junior-high and senior-high schools.

Lindley J. Stiles is dean of the school of education, University of Wisconsin; Lloyd E. McCleary is associate professor of education, University of Illinois; and Roy C. Turnbaugh is assistant superintendent, J. Sterling Morton High School, Berwyn, Illinois.

Organizing Schools for Effective Education. Daniel E. Griffiths, David L. Clark, D. Richard Wynn, and Laurence Iannaccone. Danville, Ill.: Interstate Printers & Publishers, Inc., 1962. Pp. x + 338. $6.50.

This book is intended to provide the student or the school administrator in the field with both theoretical and practical considerations in developing a functional administrative organization.

It begins with a thorough presentation of the problems and issues of formal organization, then presents six detailed case studies of administrative organization. There is a practical analysis of job descriptions defining the major school positions and recommendations for organizing the administrative staff of a local school system.

Philosophy and the American School. Van Cleve Morris. Boston: Houghton Mifflin Company, 1961. Pp. xix + 492. $6.00.

This is an introductory text on the philosophy of education. The author presents the material in three philosophical categories: What is real? What is true? What is good?

After a brief introduction, chapters dealing with the three categories are presented in Parts II, III, and IV. Part V is devoted to five philosophies in American education, presenting philosophical and theoretical concepts as organized policy statements for managing education.

Part VI is concerned with showing how philosophical theory and stated policy operate in classroom teaching and educational administration. On this topic, the author says, "And, make no mistake, no matter how much teachers and administrators may affect innocence about things philosophical, their behavior patterns in the school are outgrowths of the philosophical and policy positions they individually hold, whether they realize it or not."

OTHER MATERIALS RECEIVED: ELEMENTARY

Fairy Tale Plays in Rhyme. Louise Binder Scott. Dansville, N.Y.: F. A. Owen Publishing Co., 1961. Pp. 48. $1.25.

John Paul Jones; Soldier of the Sea. Donald E. Worcester. **Ethan Allen; Green Mountain Hero.** Sheldon N. Ripley. Boston: Houghton Mifflin Company, 1961. Pp. 190 and 191. $1.76 each. Two new Piper books.

Implications for Elementary Education; Followup on the 1960 White House Conference on Children and Youth. U.S. Office of Education Bulletin OE-20033. Pp. v + 42. Available from U.S. Government Printing Office, Washington, D.C. $.25.

Mark Twain and the River. Sterling North. **The Fishing Fleets of New England.** Mary Ellen Chase. **Muir of the Mountains.** William O. Douglas. Boston: Houghton Mifflin Company, 1961. Pp. 184, 180, and 183, respectively. $2.24 each. New titles in the North Star Books series.

SECONDARY

The Permanent Frontier: An Illustrated History of the U.S. Economy in Action. Institute of Economic Affairs, New York University, N.Y. Pp. vi + 120. Available from the Institute, 475 Fifth Ave., New York 17. $2.95.

First Year High School Algebra; Temac Programmed Learning Materials. Wilmette, Ill.: Encyclopaedia Brittanica Films, 1961. Teachers manuals for use with the programed learning materials also available.

Teaching Home Economics. Olive A. Hall and Beatrice Paolucci. New York: John Wiley & Sons, Inc., 1961. Pp. xiii + 397. $6.95.

Teaching about Communism; A Resource Guide for Teachers. Edited by Louis J. Rubin. Ventura, Calif.: Office of Secondary Education, Ventura County Schools, 1961. Pp. 322.

Problems of Democracy. Curriculum Bulletin No. 9, 1960-61 series, New York City Board of Education. Pp. 51. Available from New York City Publications Sales Office, 110 Livingston St., Brooklyn 1, N.Y. $.50. A one-term social-studies course.

The Wonderful Human Machine. Chicago: American Medical Association, 1961. Pp. 56. $1.00.

COLLEGE

Quest for Quality; Some Models and Means. Samuel Baskin. No. 7 in the New Dimensions in Higher Education series, U.S. Office of Education. Pp. v + 18. Available from U.S. Government Printing Office, Washington 25, D.C. $.15.

The National Defense Student Loan Program; A Two-Year Report. Robert C. Hall. U.S. Office of Education, 1961. Pp. vi + 44. Available from U.S. Government Printing Office, Washington 25, D.C. $.45.

Challenge to the University; An Inquiry into the University's Responsibility for Adult Education. Glen Burch. Chicago: Center for the Study of Liberal Education for Adults, 1961. Pp. iv + 79.

The Junior College; A Powerful Motivating Force for Educational Advancement. Leland L. Medsker. Washington, D.C.: American Association of Junior Colleges, 1961. Pp. 12. Single copy free.

GENERAL

Requirements for Certification of Teachers, Counselors, Librarians, Administrators for Elementary Schools, Secondary Schools, and Junior Colleges. (Twenty-Sixth Edition). Mrs. Robert C. Woellner and M. Aurilla Wood. Chicago: The University of Chicago Press, 1961. Pp. vi + 134. $3.50, paperbound.

Views on American Schooling; Introductory Readings in Education. Laurence D. Haskew and Jonathon C. McLendon. Chicago: Scott, Foresman and Company, 1961. Pp. 158.

Gifted Children; Their Psychology and Education. Maurice F. Freehill. New York: The Macmillan Company, 1961. Pp. ix + 412.

What Psychology Can We Trust? Goodwin Watson. New York: Bureau of Publications, Teachers College, Columbia University, 1961. Pp. 19. $.40.

Organization and Administration of Pupil Personnel Service Programs in Selected School Systems. Gene C. Fusco. U.S. Office of Education Bulletin No. 22, 1961. Pp. vi + 67. Available from U.S. Government Printing Office, Washington, D.C. $.30.

Trends in Financing Public Education, 1929-30 to 1959-60. Clayton D. Hutchins and Dolores A. Steinhilber. U.S. Office of Education Circular No. 666 (OE-22015), 1961. Pp. xii + 136. Available from U.S. Government Printing Office, Washington, D.C. $1.00.

The One-Teacher School and Organization of Pre-Primary Education. Two Unesco and International Bureau of Education publications, available from Columbia University Press, New York 27, N.Y. 1961. Pp. 256 and 288. $3.00 each.

Ex Litteris

(*comments from our readers*)

Dear Sir:

Thank you for your good editing in a digest of my article "Health Education in Secondary Schools" in your February issue.

In the same issue of the EDUCATION DIGEST, I noted with pleasure Franklin Parker's "The Case of Harold Rugg." Although I have forgotten many of the things Harold Rugg said in class, I shall forever remember his holding forth in weekly informal luncheon meetings with a small group of graduate students at Columbia University's Teachers College.

During those turbulent war years, he was already speaking of "winning the peace." His "Now Is the Moment" (1943) opened with these two brief paragraphs:

"It is my thesis that this is our moment. That by taking thought now . . . by focusing our total energies at the fulcrum and lifting together . . . we can move the social world.

"Now is the moment to lift the social system up from the low rut of Exploitation onto the High Road toward the Great Tradition."

Arthur L. Harnett,
The Pennsylvania State
University,
University Park, Pa.

Dear Sir:

I would like to cancel my subscription to THE EDUCATION DIGEST . . . Such articles as "Let's Abolish IQ Tests," "Solving the 'Mess in Marks'," and "Myth of Underachievement" are a waste of time in reading. These articles are in the February issue.

E. F. Towne,
Superintendent,
Dexter, Me.

Dear Sir:

I wish to inquire whether it is possible to obtain reprints of articles in THE EDUCATION DIGEST, particularly the following, which appeared in the February issue: "Solving the 'Mess in Marks'," "The Folklore of Local Control," "Progress in Mathematics," "The Problem-Solving Approach," "Teaching Foreign Languages," "Preparing Children to Use Reference Books."

Levin B. Hanigan,
Superintendent,
Mountainside, N.J.

Dear Sir:

May I say "Amen" to Brother Francis' comments in your January issue. As a public-school administrator, I would like to know more about private education. Good education should be publicized whether it be found in public or private schools. America reaps the benefits.

I suggest that more attention be given to this area.

James L. Grace, Jr.
Principal,
Cahn Consolidated School
Thorndale, Pa.

Dear Sir:

We receive copies of THE EDUCATION DIGEST and route them to all professionals in the Training Division here in Washington. I want you to know that we are most enthusiastic about it.

Occasionally an article appears which I would like to distribute on a wider basis. . . . Are reprints available, and at what cost.

Homer C. Rose,
Chief, Training Standards
and Development Staff,
Federal Aviation Agency,
Washington 25, D.C.

Editor's Note: Reprints of articles in THE EDUCATION DIGEST are available in quantities of 500 or more. If smaller amounts are desired, write us for information.

12 JUL 1962

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The Education Digest

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Volume XXVII May 1962 Number 9

The Education Digest

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EDUCATIONAL PRESS ASSOCIATION OF AMERICA

Editorial and Circulation Office: 416 Longshore Drive, Ann Arbor, Michigan.

Advertising Sales Offices:
Ann Arbor, Mich.—416 Longshore Drive, telephone NO 8-7205.
Chicago, Ill.—Didier & Broderick, Inc., 5809 Lincoln Ave., telephone LO 1-5284.
New York 17, N.Y.—Macintyre-Simpson & Woods, 101 Park Ave., telephone LE 2-0020.
Los Angeles 5, Calif.—The Jess M. Laughlin Company, 711 S. Vermont Ave., telephone DU 3-7697.

Published monthly, September through May, by Prakken Publications, Inc., 416 Longshore Drive, Ann Arbor, Michigan. The annual index is included in the May issue. The contents of THE EDUCATION DIGEST are listed in the **Education Index**.

Subscription Rates: $5.00 a year; 2 years, $9.00; 3 years, $12.00; foreign, $5.50 a year. Single copies, 60c.

Second-class mail privileges authorized at Ann Arbor, Michigan, and additional entry authorized at Oxford, Ind. Printed in the United States of America.

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PRAKKEN PUBLICATIONS

THE EDUCATION DIGEST

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Volume XXVII May 1962 Number 9

What Changes Will Probably Occur?

Unresolved Teaching-Machine Problems

Sidney L. Pressey

In Theory into Practice

EFFORTS to develop "teaching machines" and materials to go with them have been going on for some 40 years; for the past few years work has been little less than frenetic. As one active in this field from the beginning, I see changes in basic orientations which seem to attract little notice, but, if considered, might facilitate progress.

In all the auto-instruction matter up to about 10 years ago, the student first looked over a reading assignment, laboratory exercise, or other material, and only *after* some such first contact with the matter to be learned did the auto-instructional procedure present carefully chosen questions on that matter, immediately appraise each answer, and if it was wrong indicate or guide to the correct answer.

The auto-instruction thus functioned like a good teacher who, *after* a student is presumed to have made some effort to deal with an assigned task and as an adjunct to that effort, asks questions pointing up the important and possibly difficult issues.

In startling contrast, teaching machines of the past few years have attempted to replace textbooks and *initially* present what is to be learned. The material is shown one bit or frame at a time in the window of a mechanism or space of a programed textbook. The student cannot readily look back at material he has covered or ahead to sense what is to come, or discover any outline or structure in the material, or read or review selectively. His view is confined to the window or program item and he must look at perhaps several thousand frames each by itself and in the predetermined order. For effective reading, for general understanding of main ideas, and for adequate study and review, this procedure seems as clumsy as ask-

Sidney L. Pressey is Professor Emeritus of Psychology at The Ohio State University, Columbus. Reported from Theory into Practice, *published by The Ohio State University Bureau of Educational Research, I (February 1962), 30–37.*

ing a person to apprehend a picture but letting him see, in a set order, only one square inch at a time.

To some psychologists, such a presentation with immediate reinforcement may seem sound theoretically. However, some half-dozen experiments seem to agree that, in a given time, no more learning may result than if that same material were organized in continuous discourse and simply read.

For much drill, as in arithmetic or other material favoring rote learning, initial presentation one frame at a time with immediate response called for may be of much value. But study of a complex and structured subject seems better begun by an overview of reading matter to display the structure and order the complexity. In my opinion, only after such first contact should a student turn to auto-instruction for review and differentiation of major points in material just read or perhaps observed in a demonstration, field trip, or laboratory. Auto-instruction will then assure the student when he is right and identify and correct any misconceptions—as a good teacher will do.

Auto-instruction as an adjunct to the usual materials and methods of instruction would seem more widely useful and more practicable than current efforts to replace textbooks and methods with radical initial programing.

Until about 1950, all efforts at auto-instruction used objective type of questions; since then, most programs have called for write-in answers. A theoretical justification can be found for each. But there is a cost in time and trouble of write-in answers that should be recognized. Each answer must be written in the teaching-machine window or space in the programed book; the paper must then be rolled up or the page turned and comparisons made. A well-known programed text requires 2,300 page turnings. Total eye and hand movements may well be cumulatively fatiguing—and boring. In contrast, objective material requires only checking or key-pressing; and the key machine may automatically keep a valuable cumulative score.

Auto-instructional research of the past decade has been dominated by the concept of error-avoidance: the learner should neither see wrong answers (in a multiple-choice question) nor be given questions sufficiently difficult that he is likely to make a mistake. While inferences from experiments with animals in special laboratory projects may indicate that this is desirable, there are data indicating that auto-instructional human learning of meaningful matter proceeds somewhat differently. The right response is not simply the reinforced response, but the one that is recognized as most meaningful or logical. A wrong alternative may help that process if it needs to be differentiated as such to delimit or clarify the meaning. Moreover, if a human learner is "ready" for a topic, he already has some ideas about it. An important, if not major, task of the auto-instruction will then be the explication and coordination of these prior learnings. And the major task in any new learning may be to relate it discriminatingly to the old.

As for the devices, many current teaching machines are expensive, space-taking, clumsy to look after, and difficult to service. The programs may also be bulky and, the answer roll at least, useable only once. The latter is true also of a programed book. If only objective questions are used, advantages may be gained in all these respects. If a separate answer card or strip is used, the programed materials may be used repeatedly.

Believing that, typically, enthusiasts carry a new idea to extremes, which are soon eliminated and the proven residual becomes practice, I think the following described changes will occur in future programed learning:

Enthusiastic programers will quit trying to replace textbooks and other core material with thousands of "frames" viewed seriatim. Drill and rote learning may be so handled but the larger usefulness of auto-instruction will be found in coordination with, not replacement of, other materials and methods. It is hoped that programers, textbook writers, and teachers may combine efforts to produce coordinated texts, programs, and methods of using them far better than anything now available.

Once it is realized that most auto-instruction can use objective rather than write-in responses, new potentials in convenience and effectiveness can be tapped.

Abandonment of the "many-easy-questions" concept will decrease bulk and increase incisiveness. Devices can be far more simple and inexpensive than those now on the market—perhaps simply a 3" x 5" card. Machines can also serve each learner's needs more closely. Use should then increase greatly.

Evaluation should realistically take account of both values and costs in time and trouble as well as in money under everyday conditions. Such evaluations will show that auto-instruction can be made far more convenient and practical, than is now generally recognized.

The experimental psychologist may find a disturbing need to revise his theories of learning. He may need to admit that a competent human learner goes at meaningful material looking for its significance somewhat as he might scan a picture, not attempting a series of bit learnings; he may find good "wrong" alternatives more like contrasting elements in a picture than blind alleys in a maze; his progress may be more by insights than conditionings, with the final phase better described as closure than reinforcement. This is not to urge gestalt theory, but only to suggest that terms and concepts other than those which have guided the programers seem more apt. •

Are the Gravediggers Overanxious?

Is Progressive Education Obsolete

WILLIAM VAN TIL

In Saturday Review

IS progressive education outmoded? A first impulse is to say "yes." Who today is talking about the concerns which characterized many leaders of education during the first half of the twentieth century? Specifically, who today is talking about the ideas which occupied John Dewey, George Counts, Boyd H. Bode, and William Heard Kilpatrick? Practically nobody, at least nobody who is being heard widely.

Instead, as a result of the industrial revolution reaching education, matters of technology have become table talk in education today. In professional discussions and in the mass media reporting, we hear constantly about educational television, language laboratories, courses on film, and programed learning through teaching machines.

A second stress in today's education emphasizes organization of the school program. Proposals are varied and often conflicting. They include: team teaching; the dual progress plan; the nongraded school; and increasing the course requirements.

A third stress is the new interest in the academic disciplines. In part, the emphasis is on updating knowledge through efforts by specialists in the disciplines.

William Van Til is Chairman, Department of Secondary Education, New York University, and President, Association for Supervision and Curriculum Development, NEA. Reported from Saturday Review, *XLV (February 17, 1962), 56–57, 82–84.*

Technology, organization, and the disciplines seem a far cry from the philosophical, social, and psychological ideas that engaged leaders of the progressive movement in the first half of this century. There appears to have been a change in "fashions in ideas," to use the chilling and accurate phrase Irwin Edman coined.

One might readily conclude that progressive education is outmoded, save for the stubborn fact that the questions it raised are not obsolete.

The basic questions which men like Dewey, Kilpatrick, Counts, and Bode raised are inescapable questions: What are the aims of education? On what foundations should the school program be built? Given such aims and foundations, what should the schools teach? To these probing and fundamental questions, matters of organization and technique, while important, are necessarily subordinate.

The progressive education movement was essentially a quest for workable answers for our times to questions such as these. No one claims that the Holy Grail was found; no one claims that the questioners came up with final, definitive, eternal answers. But they did ask the right questions.

WINGS OF THE MOVEMENT

One wing of the progressive movement sought the answers primarily in the potential of the individual learner. A pioneer in this respect was William Heard Kilpatrick.

To many educators, probably to most, insight into the relationship between the individual and his education was the major contribution of the progressive education which Kilpatrick espoused, though he was concerned for philosophical and social as well as psychological foundations. And—mistake it not—the insight derived from Kilpatrick made a massive contribution to education in an era that had lost sight of the importance of the learner and his purposes and potential.

A second wing of the progressive movement set forth answers to the questions of aims, foundations, and content in terms of the society which surrounded the schools. George Counts, a battler for socially-oriented schools in a democracy, serves as a symbol for this emphasis.

To George Counts, the times cried out for an education realistically geared to the new emerging social order. The role of education with respect to social change and to reform was an imperative and recurrent theme with Counts and his fellow social reconstructionists. The pivotal place of social realities in education could not be forgotten after Counts was heard, even though indoctrination might be repudiated.

To others equally immersed in the progressive movement, democratic values were central to all considerations. Boyd H. Bode was one of those who felt the crucial need was for the clarification of differences between the democratic way and the way of authoritarian competitors. To Bode, progressive education was at the crossroads and a child-centered view would never suffice. Nor was indoctrination the road to a better world. As Bode saw it, the road out of value confusion led through a remorseless and unremitting use of the method of intelligence in human affairs.

I venture the bold hypothesis that each of these men touched on a part of the whole, that each perceived and particularly stressed an aspect of education which we neglect at our peril, that each succeeded nobly, and, where he failed, failed gallantly. Each asked the right questions; each responded with relevant contributions toward workable answers for our time.

John Dewey was the thinker who came closest to reconcilation of the individual, society, and philosophical foundations. Prodigious though the efforts of this extraordinary man were, Dewey never achieved extensive translation of his ideas into a new curriculum. He constantly reacted to trends and tendencies in progressive education. He made only occasional critical forays into program building. He would be the first to admit that much remained to be done to implement his ideas on what he preferred to term simply "education," rather than "progressive education."

So we turn back to the thinking of representative intellectual leaders of the progressive movement in education, not in a spirit of worship, but for the inescapable questions they raised and for the insights they contributed toward workable solutions for our times.

QUESTIONS AND ANSWERS

The questions raised and many of the tentative answers ventured by the early leaders of progressive education are not dead, nor will they die. In time, the sponsors of new educational technology, the advocates of varied forms of educational organization, and the proponents of study of the structure of separate disciplines must face the inescapable questions and consider the possible solutions proposed.

The problem for sponsors of educational technology and for those using the devices does not lie in the capacity of the machine to produce positive reinforcement, whether in the form of a kind word, a pat on the head, or a bottle of Coca-Cola. Given technical ingenuity, a reinforcing reward will be forthcoming. The harder problem is whether positive reinforcement will be used to bring nearer George Orwell's *1984* and Huxley's *Brave New World*, or whether selective and discriminating use of positive reinforcement will reduce the skill-drudgery of education and free teachers and students for more humane aspects of learning and human development, such as creativity, the use of reflective thought, and experiences in freedom.

The problem before the sponsors of educational television is not one of how to bounce beams off satellites for global television. Technology will solve this. The real problem is whether imaginative educational TV will provide learners with a magic carpet to a wider world of experience made at once more expansive and more closely detailed.

The problem before the sponsors and users of team teaching is not precisely how many students to instruct at any given time in any given space. It is whether team teaching actually will improve learning, whether it will evolve toward *interrelationships* of subject matter, whether it can provide sufficient personalized contacts with teachers and sufficient firsthand experiences to enable young people to deal with significant problems.

The problem before the liberal arts professors currently reconstructing and updating knowledge in such disciplines as physics, biology, and mathematics is not whether they can cram all of man's knowledge into separate watertight compartments, which will then be siphoned off during the elementary-school and high-school years. They can't. Even if they could, they would endlessly face true obsolescence, for knowledge dates and, like fish, won't keep.

The real problem, of which some of the reconstructors of disciplines are aware and of which others appear quite unaware, is whether the scholars can identify concepts in their new knowledge which can be made meaningful to children, appropriate to both the general and specialized education needed for today's society, and crucial in the process of critical thinking and problem solving—or whether their reconstructed and amplified knowledge, however new, will prove to be inert subject matter.

If their work is to have meaning rather than to be innovation for unclear purposes, the sponsors and users of the new technology, organization, and approaches to disciplines must come to terms with the questions that engaged the intellectual leadership of the progressive movement in education. Questions of "why" and "what" have necessary precedence over questions of "how" and "when." The inescapable questions relate to the aims of education, the foundations of the program, and what the schools should teach as appropriate content based on such aims and foundations.

Is, then, the progressive movement in education obsolete? I think not. The questions raised by the "new education" are remorseless, inevitable, demanding. The answers provided by the intellectual leaders of the progressive movement were promising beginnings, useful leads, valid foreshadowings.

A MYTH OF OUR TIME

A myth of our time is that the several tendencies which characterized what is broadly termed progressive education, were fully achieved, and are now being repudiated. The reality is that progressive education has never been tried on any significant scale.

As the inescapable queries reassert themselves and the tentative proposals of the varied interpretations of progressive education are reconsidered, educators will find it necessary to utilize the insights of Dewey, Bode, Counts, and Kilpatrick.

The central questions posed and the contributions toward workable answers for our times made by such interpreters of the progressive movement in education are not obsolete. They must and will persist. In time, they will be embodied in the form of new proposals for modern education, new syntheses which build on our predecessors, as is common in the world of ideas.

The overanxious gravediggers, and those who currently give them comfort, will discover as this twentieth century moves along that what they have mistaken for a corpse is indeed very much alive. •

What Will Replace the Progressive Movement?

Teachers and the Education Controversy

DONALD W. ROBINSON

In Social Education

IN the quiet eye of the hurricane of controversy that has rocked our public schools are thousands of busy teachers, seemingly unaware of the storm that has raged about them. They recognize the name of Admiral Rickover as a critic of the schools, but they are vague about his views and totally ignorant of the Council for Basic Education. They act as if the whole noisy fracas is none of their concern, is in fact beneath the dignity of a dedicated teacher.

In one sense, the isolation of the classroom teacher from the dispute about his work is wholesome and appropriate. His job is teaching, not controversy, and he can best demonstrate his competence by devoting his energies to his job.

Yet the classroom teacher is the central figure in the education process, a position accorded him without reservation by critics and defenders alike. It is the teachers' effectiveness and the propriety of their methods and standards that have been at issue. If teachers are professionally alert they cannot fail to become implicated in this battle over the adequacy of our educational offerings.

Those teachers who *are* actively interested in the polemics are as independent in their views as professionals are expected to be. Those with convictions about the controversy appear to be remarkably free of party-line commitments, either to the NEA view or to the CBE position. They are essentially critical of the schools' performance, though clearly not in agreement with *all* of the popular criticisms. Emphatically, they are unwilling to accept the current careless cliché to the effect that all progressive programs lead to soft education and poor performance, and that consequently any interest in group activities or nonacademic values is suspect.

Admittedly no one can speak for the teachers. They speak for themselves. As a teacher, my pronouncements about teacher sentiment are somewhat facile generalizations, based, however, on acquaintance with many teachers in public schools all over the country. These

Donald W. Robinson is Chairman, Social Studies Department, San Carlos High School, California. Reported from Social Education, *XXVI (February 1962), 65–68, 70.*

observations are reinforced by the results of an informal poll which, though it makes no pretense of being scientific research, does suggest provocative findings.

More than three-fourths of the teachers in my poll agree that schools do not impose enough discipline and that most education courses are a waste, but few go along with critics who assert that the schools are too costly, that they are not as good as they were 50 years ago, that they should require foreign languages of everyone, or that schools of education should be abolished. High-school teachers concur with reasonable criticism. Extreme proposals they reject.

The tedious and irrelevant nature of so much of the current education argument repels many teachers who are concerned with the *application* of educational philosophy, not with interminable disputation over unity versus multiplicity or selective versus indiscriminate function. And one reason why many teachers have been bored with the whole dispute is because the differences between the rival camps, real though they are, have been so grossly exaggerated. Space limitations here prevent examples.

Some teachers who agree that progressivism is dead add promptly that its important values have no more disappeared than did the New Deal values die after the Republican victory in 1952. Both sets of values had been so thoroughly woven into our way of life that when the pendulum began its conservative swing it did so on a higher level, incorporating into the conservative platform many of the former progressive ideals.

Alert conservative teachers are insistent that the values gained during 50 years of partial progressivism shall not be lost. They intend that attention to individual abilities and to social, aesthetic, physical, and other needs shall not be ignored. They insist that multiplicity of purpose and of curriculum, encouragement of student initiative, considerable reliance on psychology and experimentation, and the effort to establish professionalism in teaching shall be continued and extended. These are the values stated by Mortimer Smith in a recent *Saturday Review* article as the bases of CBE's disagreement with what he calls the current orthodoxy. They are, in spite of his protestations, basically matters of degree of emphasis, not of philosophical opposition.

STRIFE WILL RETURN

Although the cold-war aspect of the education quarrel has largely passed, replaced by a more mature and constructive exchange of ideas, the strife is bound to return, for criticism is as inevitable as change, and as desirable. Although we are not likely to see educational progressives converting traditionalists, the education debate is far from lost motion. It not only incites interest in educational goals among those who can only be attracted by dispute, it also sharpens the wits and deepens the knowledge of those involved. It also contributes significantly to the formation of opinions and convictions among the young and uncommitted.

So the temporary halt of the passionate dissension should be mourned as well as the temporary lull in the progressive crusade. But neither is buried deep. Both will return, though in exactly what form we cannot predict. While progressive education as we know it is being buried, a new progressivism is about to be born.

It is inevitable that the vacuum created by the weakening and eventual death of the progressive movement will soon be filled. The schism between the academicians and the educationists, the recent clamor created by the critics, and the continuing dissension over the direction our schools should take are all contentions for the vacant seat. They constitute the feuds and wrangles to determine what doctrine will replace the deposed progressive movement.

Quite likely the emerging new leadership will be a conservative moral revolution, with increased attention to purposes and values, to discipline and to quality. This most teachers would welcome, though without relinquishing the emphasis on individual differences, multiple courses of study, and encouragement of pupil initiative, and without denying the importance of the simultaneous revolutions in the technology of teaching and the psychology of learning. Emphasis on content and insistence on quality are not inconsistent with the tenets of the late lamented progressive movement, but only with their abuses.

Convinced that the progressive period and the slugfest that accompanied its interment were invaluable and inevitable, many teachers might add a series of commentaries on the lesson. They might mention the following as statements vital to an understanding of the Great School Controversy in the teacher's perspective:

FROM THE TEACHER'S VIEWPOINT

1. Teachers must not adopt a party-line with respect to educational philosophy or educational controversy. Not an NEA policy, a CBE policy, nor any other accepted out of associational loyalty can be a proper policy for a professional person. NEA is bound to serve as spokesman for its members, but the member teachers are bound to decide individually whether the organization truly speaks for them.

2. The Council for Basic Education, along with other critics, has correctly diagnosed many weaknesses of the schools and has properly, if angrily, brought them to public attention and public scrutiny. It has unfortunately alienated many of its potential allies and supporters within the profession by its uncompromising brusqueness, and it has grossly misinterpreted the philosophy of modern education in attempts to justify its own position.

3. The progressive philosophy has not been on trial so much as the concept of free universal education through high school. Progressive education was primarily an effort to meet the challenges posed by compulsory school attendance, an effort neither wholly successful nor totally unsuccessful, but which surely came closer to succeeding than the formalism it replaced could have done.

4. In discussing educational philosophy, one must avoid the dichotomy that creates disputes but not discrimination. Our all-out spirit tempts us to employ dualism where it is most inappropriate. If we feel the need for more discipline, we must restrain our impulse to ignore all other values in our search for the greatest possible degree of discipline. If convinced that only freedom can lead to genuine education, we must beware of the temptation of total freedom. Successful teachers know that every child needs alternations of freedom and discipline and that each child requires different amounts of each at different times.

5. American public education today lacks inspired leadership and in many quarters is scarcely aware of the lack. The absence of an inspired articulate defense is one reason why criticisms of public education dominated the public press in its one-sided coverage of The Great Controversy. No one speaks for the teachers. A philosophy of diversity has spawned a practice of divisiveness.

A new educational leadership to fill the vacuum is inevitable. A new frontier movement, a new progressivism, is just beyond the horizon. It will borrow from the recent progressive movement its experimental urge and its concern for the needs and talents of individual students. It will owe to the critics its renewed search for purpose and standards.

In whatever context these complementary urges find expression, whether psychological, philosophical, or technological, the product will be stamped with quality. The new revolution in our schools, already hailed by leaders of CBE, NEA, and Phi Delta Kappa over the last several years, is bound to be the Quality Revolution. It will have the support of teachers everywhere.

•

Oh, These Teachers!

- An English newspaper recently headlined a story: "Books for the Backward—An Exhibition for Teachers."—From *Saturday Review*.

- The student council voted to send Christmas cards to all retired teachers. One council member reported the action to his homeroom as follows: "Voted to send Christmas cards to the retarded teachers."—*New York State Education*.

Our Common Goal: A Nationwide ETV System

NEWTON N. MINOW

In NAEB Journal

Newton N. Minow is Chairman, Federal Communications Commission. Reported from NAEB Journal, *XXI (January-February 1962), 1–9.*

LAST May, in a speech to the National Association of Broadcasters, I set forth the fundamental principles which guide me in carrying out the responsibilities as Chairman of the Federal Communications Commission. There is one point I'd like to make again:

I will do all I can to help educational television. There are not enough educational stations, and many major centers of the country still lack usable educational channels.

Educational television has an enormous contribution to make and I intend to give it a hand. If there is not a nationwide educational television system in this country, it will not be the fault of FCC.

Achieving a nationwide educational television system is essential, but it is no sport for the short-winded. Those who have worked in the cause of educational broadcasting must feel at times that they are not making progress. We at the FCC salute those who persevere.

What has been achieved has been achieved in the face of a peculiar mental block. It is found on the campus as well as in the offices of commercial broadcasters. That mental block is best described by the cliche we hear, "After all, broadcasting is primarily a medium of entertainment."

But is it? And who says so? There is certainly nothing in the law that says so. The only reference in the law to different kinds of programs in the Communications Act deals with certain special protections afforded to a "noncommercial educational or cultural program."

The emphasis on entertainment comes from the economic imperatives of the commercial television industry. Let this be understood: I am not saying that entertainment is bad and that there should be none of it on television. Television—both commercial and educational—should provide entertainment, and lots of it.

But fundamentally, television is a medium of communication, not just a medium of entertainment. While communication certainly includes entertainment, it also includes education at all its levels: information, debate, history, music, dance, serious drama, etc.

Educational broadcasters have one great advantage over commercial broadcasters: freedom to cater to the mass minority audience, a massive minority wanting to escape from escapist programing. This suggests that educational television's great challenge is in the millions of adults attracted to intellectual adventure, rather than action adventure.

Now what do we need for a nationwide educational television system? Money, television stations, and a chance to serve an audience are three necessities.

MONEY

Annual expenditures for programing on all educational television stations total about $8,500,000. The three commercial networks spend more than that on programming for one week.

Knowing the need and the promise, it is shocking that we in America spend time debating not how to expand educational television but whether it should be expanded at all. The time for debate is over. Educational television should not continue going hat in hand, begging for help. There must be an aggressive and militant campaign to put educational television on its feet financially—and every other way. The opponents know how to fight, how to organize, how to persuade, how to argue, how to lobby. This is the democratic process and they should not be criticized. But champions of educational television must immerse themselves in this process with a vigor and with a skill worthy of the cause.

For an example, an excellent starting point would have been the bill being subjected to legislative processing. Originally sponsored by Senator Magnuson, the bill is designed to provide $1,000,000 to each state as "seed money" to get educational television started in each of the 50 states. The total amount, $50,000,000, certainly not a wild-spending figure, is just about what the Ford Foundation has contributed to educational television.

The National Association of Educational Broadcasters (NAEB) vigorously supported this bill. But concerted action is needed on a much broader front. A mobilization of all who are interested in educational television and a concerted campaign in support of such legislation is just a starter. United efforts should not stop there. Remember, there are two other fronts where campaigns must be maintained, and having every dollar that has been spent on television since 1948 actually won't help if nobody is watching the program.

CHANNELS

Which brings us to the second problem: television channels. Here are the facts as I see them.

We cannot rewrite history, and it is futile to waste time in useless recrimination about "what might have been" in the assignment of channels. In general, VHF channels have been assigned to commercial television and we are about out of VHF channels. The only room for expansion—for either educational or commercial television—lies in the ultra-high frequencies. Actually, VHF could not have done the job. With UHF we have 70 channels instead of the 12 available on VHF.

That sounds promising but there is a vital missing ingredient: people who are able to watch television on UHF. And here is the fundamental educational opportunity that has been missed: educational television has failed to educate its own potential audience.

UHF is educational television's sleeping giant. Through UHF there can be a nationwide educational television system. But UHF at present cannot command an audience. On UHF, the broadcaster—commercial or educational—often plays to an empty house. If educational television is to have a future, it will be with UHF. To have that future there must be a united effort, a thorough marshaling of support. The support must come from the very people you seek to serve—the potential audience.

AUDIENCE

One of the best ways to organize that support is to widen that audience, and that brings up another major problem: UHF reception. Few home receivers today can receive UHF. One way is to adapt them with a converter. Another way is to promote the all-channel receiver. A solution to this problem rests with a bit of electronic gadgetry not much bigger than your hand. There are some technical problems in turning out a set that reaches from the bottom of VHF to the top of UHF, but we cannot believe that these minor problems will stump the genius of inventive manufacturers, or are beyond the reach of the electronic art.

The Federal Communications Commission has proposed legislation which would require that television sets manufactured for shipment in interstate commerce be capable of receiving all channels. But these things will not just happen. There must be far greater interest and effort on the part of all who are interested and concerned with having a nationwide educational television system.

The future is in the hands of those concerned with education and communication. And that future means achieving a nationwide educational system in time to contribute to the country's needs. There is opportunity to bring to a mass audience the knowledge needed to keep our society growing, the cultural heritage to keep our society rich, and the information needed by our citizens to keep our society free.

There have been many frustrations, despite rapid progress. The only cures for frustration are infinite patience—or intelligent action. I believe there has been enough patience. •

Reading in the Next Decade

FRANCIS S. CHASE

In Controversial Issues in Reading and Promising Solutions

CONDITIONS confronting us in the next decade call for application of knowledge and wisdom rather than force. Therefore, I hold that the values cherished by thoughtful men are more endangered by illiteracy than by the atomic bomb and its offspring.

There are two kinds of illiteracy threatening civilization: simple illiteracy, or the inability to receive and express ideas through reading and writing; and higher illiteracy, or the inability to relate the content of verbal communication to events which at each moment are shaping the future.

Simple illiteracy operates to keep out of the reach of millions of persons objects which even the most humble have learned to demand. A few years ago there were large masses of men in all parts of the world who viewed the good things in life as being so far out of reach they had no energy even to desire them. Today, no village is so isolated, no population so illiterate that the people have not come to look for a better life and to aspire to a part in determining their own destiny.

Yet, such tangibles as food and shelter and such intangibles as self-esteem and a sense of control over one's destiny are out of reach for victims of simple illiteracy. And with every advance of science and technology, the good life, however defined, becomes increasingly inaccessible to the poorly educated.

Simple illiteracy is an easily recognized barrier to the good things of life. What I designate as higher illiteracy is a serious compounding factor. Higher illiteracy is a characteristic of those who see, hear, and even read, but who will not understand. They cannot understand. They have not developed the ability to carry on a transaction between the world of ideas imbedded in language symbols and the world of real persons, objects, and events.

The higher illiterate can absorb and repeat ideas found on the printed page but he has not devel-

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oped the ability to relate these ideas to life around him. Examples are not hard to find.

One example was identified in a speech by Archibald MacLeish to a conference of the American Library Association in 1942. He said, while exploring the failure of scholars and men of letters to oppose the rising Fascist revolution:

"Down through the thirties a considerable number of American intellectuals preached and practiced intellectual isolationism which was at least as frivolous, and certainly as blind, as the political isolation of political counterparts."

They could read the story of Nazi philosophy, plans, and behavior but they could not make any application of what they read to themselves or to the fate of humanity.

REFLECTIVE THOUGHT

The definition of higher illiteracy could be stretched to cover all forms of blindness and stupidity. It is my intention, however, to limit it to behavior which results not from lack of information but from inability to relate information to the behavior of other persons and to the course of events. We shall miss the point entirely if we do not recognize that all of us at times and in some degree are higher illiterates. All, therefore, need to cultivate the processes of reflective thought in order that what is seen and read may lead us to a more accurate perception of the world and its people.

Reflective thought, it seems to me, is more likely to occur when one is reading than in most other contexts in the modern world. We need to remember, though, that reading also can be a way of nonthinking and to recall that possibly the highest level of reflective thinking ever reached occurred some 2400 years ago among a people who could and did read, although they had not the printing press, but who used other forms of social discourse to provoke the dialogue which has been called the essence of reflective thought.

The great advantage of reading over listening as a means of provoking internal dialogue is that the reader can set his own pace, mark passages for future reference, and return at will to those portions most capable of evoking ideas previously encountered and stirring the imagination to reassemble the assorted ideas and to project one's own.

The intent here is not to illustrate the innumerable uses and varieties of reading as to focus attention on the importance of reading as reflective thought. One of the most disturbing aspects of the higher illiteracy is this failure to read reflectively.

TEACHING IMPLICATIONS

What implications does this have for the teaching of reading? We know that learning how to decipher words is a minor part of reading. And we recognize that ability to recall ideas read is not the major objective of reading. But we have not as yet developed any great skill in teaching reading as reflective thought, carried on through an active internal dialogue. Moreover, much of the reading material used in our schools is not well adapted to this purpose, for the content of ideas is not sufficient to sustain a dialogue or to provoke inquiry.

Many of the basal readers seem designed primarily to develop word recognition and vocabulary without much attention to extending the experience of the reader and encouraging him to carry on a transaction in ideas. Even in the upper grades and in high school, many of the textbooks and recommended readings are not sufficiently challenging to encourage active interaction between the abstractions that appear on the page and the experiences recorded in memory traces or projected in imagination.

Some of the currently advertised methods of teaching reading seem to treat reading primarily, if not entirely, as a process of abstracting quickly what the author has to say. This is a useful and essential skill; but, if we stop there, we are continuing the production of higher illiterates whose ability to absorb and recall may be very great, but whose capacity to understand themselves and the world may be very small.

We need to know how to help readers raise the fruitful questions, questions that establish interrelationships among items of information and lead to a search for added knowledge and deepened understanding. We can be betrayed into bad decisions either through inadequacy of information or through inability to assess and use information.

Improving the adequacy of information is a task for communication and one that needs attention; but improvement in communication will avail little unless accompanied by improvement in the ability to assess and use information. There are indications that miscalculations about Soviet potential for producing atomic bombs and space vehicles were due to an unwillingness or inability to draw correct conclusions from the data available. It is equally true of failure to understand developments on the domestic scene.

Those who told themselves that the Negro did not want access to white schools and other facilities were overlooking evidence of his desire for access to opportunities to achieve his own identity and realize his own potential. They disregarded information showing that what was being denied was not something pertaining peculiarly to the whites but rights to selfrealization pertaining equally to all citizens.

UNRAVELING PERPLEXITIES

I believe that the way in which reading is taught, the content of ideas available to the reader, and the encouragement given to rational inquiries—especially in the social domains which up to now have been little influenced by such inquiries – offer means to unraveling perplexities of the 1960's.

It is not too much to hope that a way may be discovered to record the range and quality of dialogue which the reader carries on with what is read. With such insights, we could hope to learn how to develop in learners of all ages and from all backgrounds an increased capacity to ask relevant questions and to carry on the vitally important transaction between the world of abstractions and the world of events.

The creation of world order under a rule of law and the building of a community of mankind have moved out of the category of utopian dreams into the category of imperatives for survival.

These challenges and the inherent problems can be met, and to a considerable extent solved, in the next decade provided we can find ways to offer to all the world's children a fair chance to learn those things which will make it possible for them to continue learning; and to provide a quality of education which will enable larger and larger numbers of the citizens of this and other countries to deal rationally with the problems threatening civilization; and to apply advancing knowledge and technology to the realization of man's higher aspirations.

No task is of greater importance for the next decade than that of developing the following qualities among the people generally:

The ability to read—and to listen and observe—reflectively; that is, to carry on a dialogue probing through what is read for its relevance to events of the day and used to sharpen perception of the world about us and the peoples who inhabit it;

The power to comprehend the mathematical and scientific concepts and modes of inquiry which are helping to reshape the modern world;

The capacity to enter understandingly and appreciatively into values, modes of behavior, and points of view arising in cultures different from our own;

A disposition to carry on steadily, through reading and other channels, inquiries directed toward the extension of knowledge and the cultivation of understanding.

These tasks and the means of managing them deserve the energies of the most creative members of our society. We can no longer settle for an attempt to develop the higher literacy only in persons for whom the doors of learning are opened wide by early favorable environment.

These powers and these values will be available in the future on equitable terms to all, or they may not for long be available to any. In this context, there is a new urgency for research to increase our understanding of learning and how it may be enhanced. A most promising focus for research is on the development of reflective thinking through reading. •

Are There Artificial Dividing Lines?

The Importance of Subject Matter

CARL G. F. FRANZEN

In The Bulletin of the National Association of Secondary-School Principals

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FREQUENTLY, in the professional literature and at professional gatherings, statements are made criticizing "artificial dividing lines" between subjects and "compartmentalized neatly labeled blocks of courses."

The question I raise is: Why is it necessary to suggest that there are "artificial dividing lines" between the different subject areas? Here, as in many instances, we tend to go to extremes. The extreme concerning us here is the proliferation of knowledge to such an extent that it has become so compartmentalized that it seems far removed from daily activities.

Counteracting this trend we have advocates of a "core-curriculum" and those who talk about breaking down barriers between subjects. These people have seen the content of elementary- and secondary-school subjects increase to an extent that the purpose of the content has been lost sight of and the stress has been placed on content mastery rather than on any contribution the content may make to improving the life of the individual.

Critics of this overemphasis on content mastery are attempting to find some way to combat it. They look around and note that people are engaged in various activities, the performance of which bears little relation to what they have studied in school. Through the centuries, a major purpose of education has been to prepare the younger generation to step into the shoes of the older generation, to prepare them to carry on, as it were, in the good, old ways.

And the younger generation is expected to do a better job than that accomplished by their predecessors. Whatever their education, it is supposed to prepare them to do a better job.

But as the centuries have passed, knowledge of all kinds has increased. For a time, there was considerable dictation from some authority as to the extent to which any individual might go to find out more and more about a certain field. Authority decided what might and what might not be advocated as information to be disseminated. This authoritarian approach was based on the fear that anything different from the accepted and approved dogma might tend to lessen or even destroy the power of those in authority.

History is replete with instances of stubbornness to have new theories replace old ones, even when new theories possessed attributes of common sense and experimental evidence. (The difficulty the Copernican theory of the universe had in challenging the Ptolemaic theory is a classic example.) It took the Renaissance and the Reformation to break away from the authoritative control of men's thoughts and ideas. And from that time to this minute, whatever was new and could be proven sound has been added to our store of knowledge.

It is interesting to see how the various fields of knowledge have developed. Grammar came as a result of a discrepancy between the spoken language and oral tradition. One did not write and talk the same way that characterized the nation's epic. The science of grammar had to be invented to explain the difference. Men had dreams; they saw people die; they endured the rain, wind, and lightning. They tried to develop explanations for these natural phenomenons. They invented good and bad spirits and a religious observance; they developed tabus; then explanations of natural forces resulted in what we call superstitious practices.

With the passage of time, these many phenomenons began to be classified according to type. Living forms became zoology; plant life, botany; the operation of the world, physics; the constitution of things, chemistry; the heavens, astronomy; weather, meteorology; the composition of the earth, geology; the relation of countries to each other, geography. And, as more and more knowledge was gained in these various areas, we had further classification into biological chemistry, physical chemistry, electronic chemistry, etc.

It is this extensive proliferation of subject matter that draws the fire of opposition from well-meaning educationists. They contend that, to work in any of these areas, we must have specialists and that these specialists tend to emphasize the importance of specific information to the exclusion of any real meaning that may be attached to it. Consequently, as these specialties developed, they were taught with little regard to their applications. Knowledge of facts and more facts became the goal of education.

The opponents of this minute subclassification rightly object to the emphasis on factual data, claiming that life isn't conducted that way. Their argument often reverts to primitive days when learning was knowing how to perform the activities boys and girls would face as they became men and women. If the adult male hunted, fished, etc., the youngster learned these activities by imitating his elders. Some, not all, subject-matter antagonists would have us go back to the activity approach of primitive men and build today's curriculum in similar fashion. They would do away with subject-matter distinctions and have youngsters taught how to buy economically, how to vote intelligently, how to raise families sensibly, how to use mass media of communication sensibly.

A NATURAL GROWTH

That modern man engages in all these activities no one can deny. What I object to is the seemingly utter disregard of something developed over the centuries, something as natural in its growth as anything is or can be—subject matter. I claim that meaningful arithmetic cannot be taught incidental to budgeting one's income. Mathematics is mathematics and never will be anything else. But the mathematics we need to teach boys and girls is not the mathematics the specialist needs to be a master in that field. We should teach boys and girls the mathematics they can use now and in the future.

An activity is not a simple affair. It is made up of many constituents. The human mind is generally capable of applying from many sources the necessary data that will help solve problems. I learn from English how to write a job-application letter, and I learn from mathematics what I need to receive in compensation so that I may live comfortably. I learn from social studies the importance of occupational activities and their relationship to each other, and I learn from typing how to type my letter. But I must learn composition in English classes, money from mathematics classes, occupations from social studies, and typing in typing classes. If I can't draw from each area, I shall fail in my endeavors to get a job.

To deny that life is subject-matter centered is to deny that information development has taken place. It is a denial of the organization of our encyclopedias, the subject-matter organization around which colleges organize their courses, the organization of newspapers into general and world news, editorial, sports, and classified sections, or the society page. In fact, it is to deny the very way that life has developed. Further, it weakens the place that subject matter has in our schools. It results in sloppy bits of information, a little of this and a little of that, with no surety about anything.

Rather than throw subjects out the window and inveigh against compartmentalization as such, we need to consider what should suitably be included in each subject area and then teach it so it can be used in solving problems or preparing activities. Subject matter we are going to have as long as life persists. The "core-curriculum," much as advocates claim for it, is not the answer. Knowing what to teach and making teaching meaningful is a more realistic approach. At least, it recognizes that the world does move. •

A Snare and a Delusion?

Grade Level Tests

LEONARD M. GOLBER

In Chicago Schools Journal

TEACHERS are being exhorted to select and encourage the academically gifted students and (sometimes) even the creative students. They are told of the necessity for experiment and the need for new approaches in education, and they are cautioned to bear in mind the individual differences of students. In a word, teachers are being told that the schools need flexibility.

Yet, while the need for flexibility is being stated repeatedly, fetters that will immobilize and defeat this flexibility are being more firmly fastened.

The figurative chains are the broadly organized standardized tests, particularly those which produce a score which is to be interpreted in grade levels. I am convinced that such tests do far more harm than good and that they should be abandoned.

The tests are recommended on the basis that they are "objective" and "standardized" and are, therefore, not subject to the misconceptions of the teacher; that they are easy to administer and grade; and that they enable administrators to compare teachers, schools, and systems on a national basis. Even were it true that these tests possessed the virtues claimed for them (the truth of which is open to doubt), the price of using them is still much too high.

Such tests are tremendously misleading. They produce the illusion of simplicity where there is complexity and of homogeneity where there is diversity.

The advantages of homogeneous grouping—ease of handling, less preparation of study materials, etc. —are well known and quite valid. Let us examine such a group assembled to learn to read. Naturally, they are selected and grouped on the basis of their grade levels as shown by a standardized test.

Our group is at the 4.5 grade level. Student *A* is in 3A and is brilliant. Student *B* is in his normal grade. *C* is in the 6th grade and guesses as to word identity, mistaking "tuck" for "truck." *D* is in 7th grade and has mastered the mechanics of reading but being a recent immigrant has an inadequate vocabulary. *E* has an excellent speaking vocabulary but has brain damage which prevents him from comprehending print. *F* is partially deaf.

Or, consider an arithmetic class,

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grade 5.0, grouped by grade level as determined by a standardized test. Mary does not know her addition facts; Jerry is confused about "borrowing"; Kenneth does not understand division by fractions; and Marlene has the fixed idea that seven times eight is fifty-eight. It is apparent that the "homogeneity" is spurious and utterly misleading.

In a hospital, it is sensible for *administrative* purposes to place a child with a heart defect, another with dangerously high blood pressure, and a third who has swallowed lye all in the same ward. But it would be utter folly to assume the same diagnosis and treatment for all. Each must be treated according to the nature of his disease.

In the classroom, the fact that a child reads at a grade level of 4.5 instead 8.0 may indicate that something is wrong but indicates very little as to the nature of the defect.

Someone will point out that we have alert and intelligent teachers who will know what is wrong in each case. If this is true and the teacher is able to make a sharp and discriminating diagnosis of each child, then we should rely far more on the teacher's judgment than we do, in which case the standardized test is unnecessary. Or is it to be assumed that the teacher is capable of discerning *what* is wrong but is too inept, or too unobserving, to notice that there is anything wrong?

I do not speak against teachers or tests. But if we must have standardized tests, let them produce some reasonably useful diagnostic information. Unfortunately, the trend is in the other direction, toward a sterile and misleading system of classification.

ANOTHER DISADVANTAGE

An even greater disadvantage than the erroneous grouping they produce is the influence standardized tests have in determining curriculum. As the use of such tests spreads (and it is spreading rapidly), the tests have a tendency to become the sole criterion of success or failure in school. This is not quite the case for the individual student as yet, for (to a diminishing degree) the teacher's voice still carries weight, but the tests are certainly the sole measure of the success or failure of a school or a school system. Administrators anxiously eye the positions of their schools in relation to the "national norms." Under this condition, with the rating of the school and the system dependent on success in the tests, the pressure becomes overwhelming to *teach the test.*

If it is known that a certain required test in literature emphasizes late nineteenth-century English writers, eventually teaching will center on late nineteenth-century English writers, regardless of what is proposed in the course of study. The class that spends its time on Hemingway, Capote, and other mid-twentieth century writers will suffer. Such writers are not in the test and no credit is given for knowing them. If you get *too* original, you will not win a scholarship.

Assume that it were desirable to teach geography in high school and to replace it with algebra in the elementary school. Regardless of merit, the verdict will be, "No good!" Tests which rate elementary schools include geography; they do not include algebra. You can't win.

The cure is rather simple. It is not to abandon standardized tests. In the tool subjects, the sciences, and wherever else possible (it is not possible in all cases), the tests should be broken down to cover small, sharply delineated areas.

The content of elementary algebra is generally agreed on. There is no reason a national norm cannot be set up for algebra, but why is it necessary to state this norm as a grade level? By discarding grade levels we could place algebra anywhere in the curriculum that seemed advantageous. We could still know that a particular boy placed in the upper decile of a particular test. We could have standardized tests in any subject and be free to shift the subjects about within the curriculum without disaster to the school's rating.

For diagnostic purposes, I suggest what I call modular tests. They would be a series of tests, each examining a small, sharply delineated bit of information or testing a particular skill. As a child masters a module, it will be checked off against an inventory listing of such modules. This inventory will be a part of the child's permanent records and will accompany him from school to school. Modules not checked off will immediately communicate to teachers, parents, and counselors what is needed.

Such tests would be better psychologically than the present standardized examinations, as the modular test could be given without the formality and the sometimes intimidating aspects that are concomitant to the use of the large standardized tests.

Modular testing would permit more truly homogeneous grouping than do present grade level tests. A remedial teacher could be assigned to cover the various modules in which deficiencies were indicated, and with the nature of the child's weaknesses indicated by his module record, correct placement for remediation would be simple.

A reform in testing of the nature proposed would result in greater flexibility in the organization of the school and in better diagnosis of defects with consequent better remediation. •

OUR society has taken to tests in much the same way as it has taken to electrical home appliances: If they are cheap and efficient, there is no need to understand either how they are made or how they work.—Joshua Fishman in *Teachers College Record*.

An Approach to Teaching Secondary-School Teachers

HUGO BECK

In The School Review

ON the basis of an analysis of some 60 "new" programs of teacher education and close association for some time with one university's program leading to the degree of Master of Arts in Teaching, I see certain variables that must be controlled to deal effectively with the problem of fragmentation of subject matter, if we are to resolve the dilemma between liberal and pedagogical education, and if we are to provide for interchange of ideas among the academic disciplines, the field of education, and the secondary school.

Since the education of future teachers is similar in content to the education in other professions, the undergraduate program of secondary-school teachers should be the responsibility of the liberal arts college. I will not define a sound liberal education, except to assume that every liberal-arts graduate has been exposed to the four domains of knowledge: physical science, biological science, social science, and humanistic studies. However, beyond that point the training of future teachers begins to develop in specialized areas.

The first area is competence in education as an academic discipline in its own right with its own identifiable subject matter. Specifically, education is inquiry into the way in which society transmits the culture and the accumulated wisdom of that culture to each new generation. Even if there were no departments of education in the conventional sense and no pedagogical methodology, education would still have a legitimate place in the social-sciences curriculum.

The secondary-school teacher also needs competence in the specialized subject-matter fields he plans to teach. He must be thoroughly conversant with methods of inquiry in that field. Competent scholars in these fields can assist the teacher-scholar in developing criterions for the selection of materials that are crucial for course content for secondary-school students.

Third, the secondary-school teacher must have facility in areas of education that are germane to

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the teaching-learning situation. He must have insights into theories of learning, into motivation, evaluation, individual differences, group influence, the structure of social organizations, the effect of the social and the natural milieu—all areas grounded in and developed through the liberal arts tradition and of special concern to the behavorial sciences. An interdisciplinary approach is needed so that each department does not perpetually rediscover the wheel. Lines of communication must be kept open so that when knowledge is discovered in one discipline that has relevance to another the knowledge may be readily shared.

Fourth, the secondary-school teacher must have competence in the technological and the technical aspects of education. This area includes the methods of teaching a specific subject, the development of learning materials, the use of audio-visual techniques. In short, we are concerned here with the teaching process. If these areas are taught as accumulated folklore, as tried and true practices, or as "seat-of-the-pants" judgment, the academician may validly object that education courses lack a scientific approach. But this area of pedagogy can be taught, and in a few places is being taught, with as much rigor and as much dedication to a theoretical rationale as any of the social sciences.

The education of teachers has still one more dimension: the art of teaching, which is a synthesis of the four areas described here and which culminates in the actual teaching-learning situation that the teacher meets in the classroom. Insights and concepts gleaned from these four areas are brought to bear on the child to facilitate his learning. The blending of these insights and concepts into a meaningful approach is a task that calls for personal inquiry and reflection, a task that the teacher must do for himself. No one can do it for him.

However, there are many sources of competent assistance available. Scholars from the great categories of human knowledge, scholars in the field of education, intelligent schoolmen who are skilled practitioners, and master teachers directing beginning teachers must share responsibility in enabling the teacher to develop his art.

RELEVANT QUESTIONS

If the foregoing has any validity, the relevant question is not which of the four areas described is in the liberal-arts domain and which is in the pedagogical domain. The answer to that question makes relatively little difference. But the following questions are relevant.

How is knowledge discovered, developed, tested, revised, extended, and communicated in all areas of special concern to secondary-school teachers?

What methods of inquiry are inherent in these areas?

What type of organizational structure can be designed to bring about smooth interchange and interaction between academic scholars, pedagogical scholars, and skilled practitioners?

If both camps–liberal and pedagogical – are committed to rigorous pursuit of inquiry, how can we develop mutual respect for the contributions each can make, put an end to bickering, and get on with the task of improving instruction at all levels?

The answers do not come easily but they must be provided. The following is a description of an approach to teacher education which I believe has potential for coming to grips with these basic questions.

The faculty for this approach would consist of members of the university academic departments, members of the education department, and skillful practitioners in the field. All would share the responsibility of developing, guiding, and evaluating the total teacher-education program.

From the academic department we would seek scholars familiar with methods of inquiry inherent in their field, expecting them to be extremely competent in communicating these methods to their students.

From the field of teaching we would choose practitioners skilled in the teaching arts, thoroughly competent in the academic and pedagogical fields. They would be teachers with demonstrated ability to teach a given subject effectively at the secondary level and to remain abreast of developments in that field. Above all, they would be teachers willing to share their talent with beginners.

At one time or another, we would use the entire department of education staff. Typically, departments of education are divided into a number of separate fields. However, the improvement of the learning process is a common bond. Consequently, every faculty member of the department, at the opportune time, would make his unique contribution to the pedagogical phase of the teacher's education.

The content of the approach would be drawn from the three basic sources from which the faculty was drawn. Students preparing to teach in high school must have a substantial amount of graduate work in their teaching field under the guidance of competent research scholars who can teach. Content of these courses would be determined by the entire faculty with the greatest and most significant direction being given by faculty members in the academic subject.

The pedagogical education would be developed in a year-long seminar in which the students would be encouraged to develop productive ways of thinking about the learning process and the school's role in various social settings. Organized around basic educational questions, the seminar would occupy students with exploring the philosophical, historical, and psychological aspects of learning.

While exploring these basic problems, we would call on scholars in the education department who were pursuing studies of creativity, of motivation and learning, of concept development, etc. The specific content of the seminar would be the major responsibility of the department of education, but members of the academic department and the field would share in the planning.

While the beginning teacher was concerned with advanced study in the teaching field and investigating the nature of the educative process in the education seminar, he would be given the opportunity to become deeply involved in the actual operation and conduct of a secondary school. Beginning with observation of a high-school class in operation, proceeding to more active participation in the conduct of that class, and finally assuming responsibility for "teaching" a class under competent guidance, the beginning teacher would have opportunity to see the relevance of the academic and the pedagogical education for the live classroom situation.

NEW TYPE CONSULTANT

In this area we envision a new type of educational consultant to help the beginning teacher, a coordinator for each subject-matter field. The coordinator would be a master classroom teacher and a scholar in his field. His main task would be to effect the interchange of ideas among departments.

After one year of graduate study, the beginning teacher would join the faculty of a secondary school under an intern arrangement. A highly competent professional teacher, willing to share his knowledge and experience with the intern, would accelerate induction of the intern into the profession and the community, offering guidance, sympathetic criticism, and inspiration during his first year of teaching.

On completion of the one-year internship, there would be final evaluation of the teaching candidate by all who had participated in his development: subject-matter specialists, scholars from the education department, the coordinator, and the master teacher guiding the candidate during the internship. Thus, the awarding of the degree of Master of Arts in Teaching would be contingent on a recommendation from four groups of people.

This approach to teacher-education would be an extension of liberal education, not a replacement. Combining the talents of a variety of scholars, it would present opportunity for members of academic departments in colleges and universities and members of the teaching profession in the field to assume a more vigorous role in the education of teachers. Whether it can resolve the basic dilemma in teacher education remains to be seen. It may carry the seeds of a better plan for developing the inquiring teachers desperately needed today. •

The Teacher's Roles Are Changing

Sharing Teaching with Television

I. KEITH TYLER
In The News Letter

THE classroom teacher who uses instructional television must learn to share with the television teacher the responsibility of stimulating and nurturing pupil learning. What changes in role and function are implied?

Occasional use of television programs presents few problems to the teacher accustomed to using audio-visual materials. It is the systematic use of two to five telecasts per week in a given subject which requires major adjustment by the receiving teacher. Relinquishing curriculum autonomy is the most difficult adjustment.

Instructional television, directed to many classes, limits curriculum autonomy by structuring the broad outlines of subject matter, sequence of units and topics, and even the relative time to be devoted to each. It is natural that teachers might resent this restriction on their teaching freedom, and the most progressive teachers may be the most resentful.

Actually, systematic use of television does not require teachers to surrender a large measure of curriculum autonomy. Their freedom is already greatly limited by many factors, including prescribed courses of study, textbooks, uniform examinations, etc. But those who have been following their own course organization are required by the nature of instructional television to surrender this much of their autonomy.

What do they gain in return? First, the television syllabus must represent the best organization of the course. It must be based on competent curriculum research and authoritative opinion. It must keep abreast of changing trends, emphases, and subject matter. Teachers must feel assured that the television course organization and content are markedly superior.

Second, daily presentations must be more efficient. The television teacher has much more time to prepare each presentation, and he should be backed up by a team of experts in subject matter and learning theory. He should take less time to cover the same ground.

Third, the presentation must be more effective. It can use a greater variety of extensive and expensive

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apparatus, and it can call on authorities where they are needed. The impact on the pupils should be greater.

Where, then, does the teacher retain sufficient freedom to take individual differences into account? This freedom is found in time allocated to the subject which is not consumed by broadcast presentations. The appropriate relationship between the time devoted to television and that consumed by other learning activities will vary from subject to subject and even from grade to grade. Too little is known about this at the moment. There appears to be a trend toward reducing the amount of time devoted to television presentation and increasing the time for related classroom and individual learning activities, as teachers become adjusted to the new medium.

The second adjustment for the classroom teacher is to redefine his instructional role. If he sees himself fundamentally as a purveyor of subject matter, he faces an imposing rival in the television teacher whose presentations are characterized by authoritativeness, efficiency, and effectiveness. He feels reduced to a vassal carrying out plans of the master teacher. Worse, he feels degraded in the eyes of his pupils who may compare him unfavorably to the glamorous figure on the screen.

Unfortunately, in actual practice, both in higher education and in secondary schools, classroom teachers do spend an inordinate share of their time in doling out subject matter—in telling and showing. Even elementary-school teachers tend to consume more class time in talking than do all their pupils collectively.

When the purveying role is taken over by the television teacher, what roles remain for the classroom teacher? Basically, the teacher has two essential roles which cannot be automated. He is a manager of learning situations and a counselor of individual learners.

TWO ESSENTIAL ROLES

As a *manager of learning situations*, the teacher must arrange appropriate situations in which pupils can learn. These may involve the entire class, groups within the class, individuals, or even several classes together. The situations may call for practice and drill, for reading and discussion, for research and investigation, for laboratory experimentation, for creative activity in music, composition, or the arts, or many other activities.

The teacher must know his pupils well enough to be able to diagnose their needs, appraise their progress, and prescribe the appropriate learning situations. He must have a thorough background in subject matter so that he can relate it to effective learning activities. He must have a working familiarity with materials, media, and resources so that they can be employed appropriately. And finally, he must have a grasp of objectives and goals so that these can be related to his own pupils in terms of appropriate subject matter and learning experiences.

A lack of time for planning, arranging, and carrying out activities is a serious obstacle to employment of more varied learning situations in the classroom. Teachers typically are burdened with the task of presentation – of purveying content. The time involved in planning the presentation is even more important in this respect than time consumed in the actual presentation. Television, by taking over the main task of telling and showing, can provide the teacher with more time for individual and group learning activities.

As a *counselor of individual learners,* the teacher assumes a role always significant in education. The personal approach in teaching is more important than ever before as society becomes increasingly depersonalized through mass media, urban living, and the changing nature of family life. Rising juvenile delinquency is attributed in part to the loss of emotional security by children who are victims of broken homes, parental neglect, migration of workers, and the tension of the world situation.

There is no mechanical or electronic device which can play this counseling role in education. Only the classroom teacher can study his pupils, ascertain their needs, and provide the appropriate emotional and intellectual guidance. Television can be an aid. While the television teacher tells and shows, the classroom teacher can be observing the reactions and symptomatic behavior of his pupils. While operating as a manager of learning situations, he can provide also for appropriate guidance situations where needed.

Once teachers see themselves as managers of learning situations and counselors to individuals, they no longer look on television as a threat. The television teacher whose speciality is telling and showing, becomes a teammate or partner in the total learning process. The classroom teacher alone is the all-around professional who studies his pupils, diagnoses their needs, and provides appropriate learning and counseling situations to enable them to achieve educational objectives. In this he attains his satisfactions, his fulfillment, and his reward through face-to-face relationships with learners. •

The TV Influence

- "Richard," said the teacher to a fidgety eight-year-old, "are you listening?" "Yes," he replied nonchalantly, "my aerial's up."—From *Christian Science Monitor.*
- The parents smiled when their son began whistling Mendelssohn's Spring Song. He disillusioned them, however, when he said, "That's just what they play on TV when somebody gets bopped on the head."—From *Texas Outlook.*

Make Long-Term Effects of Actions Real

Discipline for Adolescents

RALPH H. OJEMANN

In The PTA Magazine

MOST everyone will agree that what is wanted for adolescents is the kind of discipline that helps them to become selfpropelled, self-controlled, selfguiding persons. Parents and teachers will not always be on hand to prod, to restrain, or to decide. The time always arrives when the individual must go it alone.

A child acquires selfreliance only by making more and more of his own decisions. By the time adolescence is reached, many of the decisions are quite complex and often serious. The young person finds himself facing questions that can't be answered by a simple rule. The adolescent has no choice; he must learn to *think* his way through his problems, using his powers of logic and judgment. Moreover, some decisions have to be made rapidly. Time will not permit an exhaustive analysis of the situation.

This is where discipline comes in. The young person must be helped to acquire the habit of making decisions intelligently, with skill, promptness, and "finesse." Only as he develops this ability does he become a selfguiding individual.

To think his way through a problem, the adolescent needs to be aware that he can handle the situation in several different ways. Suppose he doesn't like some subject he is taking in school. He can blow off steam by griping about it. He can blame the teacher. He can cut that particular class. He can stay in class and fail. Or he can go to his teacher, parents, or the school counselors and try to find out why he dislikes the subject and what's the best thing to do.

It's difficult at times to recognize all these alternatives, let alone evaluate them.

How can we help our adolescent learn to handle a situation by thinking of possible alternatives, weighing each in terms of its probable effects, and choosing the most constructive one? Obviously not by stepping in and solving his problems for him. But often we can help by showing him that we, his parents or teachers, try to handle situations this way. We can help, too, by trying to understand his prob-

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lems and perhaps suggesting alternatives.

We can observe him as he goes about the task of growing into adulthood—finding himself, building up a feeling of his own significance, working out his relations with the other sex and with persons in authority in home, school, and community. As we watch we can detect how he goes about making decisions. Perhaps he impulsively chooses immediate satisfactions, neglecting long-term effects.

For instance, does he content himself with griping about a problem or arbitrarily striking out against authority. In a counseling session there can be a discussion of these impulsive actions which give immediate emotional satisfactions but are ineffective and destructive in the long run. Too often we simply label these as bad behavior and proceed to condemn or prohibit such actions. The adolescent needs to know *why* we think they are bad or ineffective.

Suppose, even after a fine discussion of alternatives, he keeps on griping or rebelling against authority or showing his hostility?

An adolescent who knowingly persists in an unwise course of action may feel the reality of the immediate satisfactions while the long-range effects have no impact. Teachers and parents may point out the eventual benefits of the wiser course, but he discounts their opinion.

The question: How can we make the long term effects of actions real to our adolescents, so they won't have to find out through costly or dangerous trial and error?

One approach is by making the remote effects as down to earth and as close to his experience as possible. Instead of telling a boy that students who own cars get low grades in school and that low grades mean a low income in later life, we can be much more realistic. Owning a car, we can say, involves certain responsibilities, dangers, and sacrifices. Beyond the car's original price, we can point out, is the heavy cost of upkeep and insurance. Will it mean working after school and weekends? Will it mean cutting down on social activities?

Deep down, no young person wants to shorten his life or make it difficult to have a satisfying marriage or earn a good living. He doesn't want to risk death or injure himself or others. These are effects of immature actions.

Some of these effects we know with considerable certainty, some we know with less certainty, and some we can only guess about. In our discussions with adolescents we want to make a distinction between what we know at the various levels of certainty. They will have more confidence in us as they see how careful we are about distinguishing between what we know and what is only our opinion. If we are proved wrong, we can show how we reexamine our knowledge and experience so that our adolescents will learn to do the same. That we should "save face" is less important than constantly reassessing and refining our knowledge.

To make the effects of actions real to adolescents we must see that they experience the consequences of their decisions. This means letting them make some mistakes and suffer the consequences. This is difficult, for the instinct to spare children pain, humiliation, and unhappiness is deep rooted. Yet early experiences with small failures and mistakes may save them from big ones with deeply injurious long-range effects. If they are to know that actions have consequences, they must make choices and live with the bitter or sweet fruits their actions produce.

When youngsters have made a mistake we must be careful not to be irritating with, "I told you so." We can let them understand that we know that no one's judgment is infallible and that the important thing is to learn from our errors and rectify them as best we can. If the consequences are too burdensome for a youngster we can, after a time, help him out. But he should experience enough discomfort or disappointment to learn that human beings must live with the unhappy results of faulty decisions. And when a youngster makes a disciplined decision, one entailing selfcontrol, hardwork, or the postponement of immediate pleasure, he deserves to know that we are proud of him. Success is often a more powerful teacher than failure.

Another very significant element in the discipline of adolescents is *emotion*. No one at any age can be free to think through problems if he is plagued by strong feelings of insecurity or inadequacy. Adolescents and adults have to find a measure of security and selfrespect if they are to attain selfguidance. Nor can parents and teachers administer discipline successfully unless their tempers, nerves, words, and actions are under control. Undisciplined parents and teachers cannot expect to have disciplined children and students.

What kind of discipline for adolescents? The kind that will be effective in our fast-changing world. In this age of science, a scientific approach to discipline focused on cause and consequence appeals to young people because it makes sense to them. The incentive of the adolescent who is in on the thinking and planning essential to a well-ordered life is not unlike the incentive that nerves the astronaut to venture into space. Incentive plus effort plus knowledge are the three stages leading to responsible maturity, responsible for consequences not only to oneself but also to one's fellow human beings. •

THINGS generally balance out. Other people's troubles are never as bad as our own, but their children are always a whole lot worse.—From *North Carolina Education*.

How One School Adopted a Paperback Program

The Paperback Comes to Bremen High

EDWIN BRUELL

In The English Journal

AMONG the English teachers at Bremen High School, a suburban institution with 2,000 students, there were, a year ago, strange murmurs of discontent.

Despite the existence of many tangible tools of the craft, the teachers felt that something was lacking. That which was weighed and found wanting was the series of literature anthologies we had adopted. On investigating we learned that criticism of the anthology series was not criticism of these anthologies *per se*, for there is much to commend in the books.

We all liked the student-tempting humorous pieces in the freshman book, the "escape" unit and the folk tales and mythology in the sophomore edition, the emphasis on heavier writing and thought processes in the junior collection, and the modern treatment in the senior offering. We were not impelled, then, to seek improvement in our program because of dissatisfaction with our specific textbooks; we were determined to enrich our program, in a sincere sense and not in a trite sense with all its connotations of busy work.

We were convinced, as Dwight L. Burton wrote in *Literature Study in the High Schools*, that "there is an inherent crippling if the anthology becomes the complete teaching program—as may be the practice in some schools."

When teachers have problems, it seems that the only course open is to have a series of meetings. We did. After many months of many meetings, we decided to institute a paperback program, purely as a supplement to our course offerings and not as a substitute for any of them.

After disposing of the philosophical problem of the need for paperbacks, our second step was to explore the available sources of supply. We found this to be no problem. The American public annually purchases more than 300 million dollars' worth of paperbacks, although the paperback movement in America is only 20 years old. We procured materials from universities, professional organizations, publishers, and others.

Once we knew our sources, we

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were on our way toward establishing a program. Next, we tangled with some new and inherent problems. One was, inevitably, that of good taste and discretion. How far should we go in meeting the mature needs of our students, at the same time allowing for those with varying degrees of sophistication? Should we place emphasis on the assumption by Don W. Wolfe that "more often than not the English teacher of the average ninth or tenth grade has been more sheltered than his students"?

It was interesting to note, during this period of somewhat turbulent compromises, that the younger teachers, fresher from college, were the more militant crusaders, whereas those teachers who had labored longer in the educational mills were more squeamish and more inhibited.

USE PROBLEM

Another consideration was the practical method of use. We decided that everyone should read the books to receive credit in the courses. After the students had read the books, what was then the best procedure? Should we subject the students to written book reviews? Should we have pertinent class discussions, in small groups with student leaders? Should we consider problems raised by the books as takeoff points for other learning? Should we analyze the books? Would the books furnish opportunities for students to make oral reports?

It is, plainly, easier to ask stimulating questions than to answer them. In this case, we decided to use the shotgun approach. Feeling that all these methods had merit, we decided to use them all.

Another problem was that of fitting the books into an already crowded program without dispensing with any of the essentials. We decided that all reading should be done outside class. We also decided that many composition assignments should spring from exploration of the works. We did not go beyond that and to this day we are seeking suggestions for overcoming such an inexorable force as time.

EMPHASIS PROBLEM

The problem of emphasis was also important. Should we concentrate on narrative, which is most popular, or on exposition, which is more utilitarian, or on sturdy argumentation? Again we compromised, knowing that such categories are not rigidly and finely drawn, and placed our emphasis, I confess, on fiction. We could not think that literature should serve as a mere handmaiden to the social sciences, although we agreed that each of these areas of knowledge could supplement the other. We liked the biographical and historical references in our anthologies, but we did not think that they should constitute our ultimate product.

What of the terminal student? Secondary-school teachers are besieged by the pressures of preparing their charges for college entrance. If we were concerned only with our own propensities for ulcers, we would certainly simply tolerate the terminal student by prescribing a dose of soporific pacifiers. We would simply "draw a circle and shut him out." Instead we did what any group of curriculum planners must do. We remembered the admonition of another group of college professors in the California Experiment: "No student, whatever his vocational and educational aims, should be deprived of the soundest training in English that he can be given and hence . . . we should not ignore the terminal student."

FINANCIAL PROBLEM

Not all of our problems were concerned with philosophical abstractions. There was the practical problem of finance. It is a statistical fact that our district is among the highest in financial effort and among the lowest in financial resources of any in Cook County, Illinois. Our district has plenty of natural resources such as children, and little capital such as factories. If we were operating purely for convenience, we would not have taken on an ambitious paperback program. Fortunately, we have a cooperative and well disciplined student body. We rely on the students' aid in carrying out effectively the mechanics of the paperback program.

The cost of the program is no small factor to be considered in our school. Nevertheless, we decided not to use the system of having students purchase only some of the books and then trade around. A strong determinant in this decision was the request of the students that they be enabled to keep all the books.

The climax of many months of academic labor came about with the selection of the books. By this spring, we probably will be made aware of some of our shortcomings in selection. Then we shall have the fun of adding new books and subtracting present selections. Here is the list we decided on and we are well aware that there are many reasons for including selections we did not choose and for removing selections that we did choose.

English I: *Tale of Two Cities* and *Stories and Poems of Edgar Allan Poe*. English II: *Pocket Book of O. Henry Stories* and *Jane Eyre*. English III: *Bridge of San Luis Rey*, *The Scarlet Letter*, and *Great American Short Stories*.

Senior English: *Rebecca*. College Preparatory English: *Great Modern Short Stories*, *Animal Farm*, *Six Great Modern Plays*, *Six Great Modern Short Novels*, and *Handbook of Mythology*.

English I (accelerated): *Midsummer Night's Dream*, *The Good Earth*, and *David Copperfield*. English II (accelerated): *The Young Caesar*, *Pocket Book of Short Stories*, and *Great Essays*. English III (accelerated): *Four American Novels*, *Great American Short Stories*, and *Ethan Frome*. •

Experimental Program in Cleveland

Adapting Mathematics Instruction for the Talented

LAWRENCE HYMAN

In Ohio Schools

LEADERS in mathematics education are finding evidence that academically talented pupils can move more rapidly through the traditional mathematics program.

With this philosophy as its basis, an experimental mathematics program to challenge junior-high pupils of superior ability was started in September, 1960, in the Cleveland Public Schools. A select group of academically talented pupils in seven junior-high schools was chosen to participate.

The experiment consists of an accelerated program in which seventh- and eighth-grade mathematics are completed in the seventh grade. This acceleration necessitates a variation and re-arrangement of subject matter. Algebra is then studied in the eighth grade and is to be followed by a combined plane-solid geometry course in the ninth grade.

The proposed sequence of courses following this will be: 10B, intermediate algebra; 10A, trigonometry; 11B, college algebra; 11A, advanced mathematics I (integrating algebra, geometry, and trigonometry); 12B and 12A, analytic geometry and calculus (tentative).

A coordinating teacher, working on a full-time basis, is organizing and developing the program. He consults with principals and department chairmen, counsels mathematics teachers, plans workshops that are conducted by nationally-known authorities in mathematics education, and serves as chairman of a steering committee composed of mathematics teachers from the seven junior-high schools.

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To evaluate the effectiveness of the program for the first year of operation, the Stanford Advanced Arithmetic Test was given to the experimental group of seventh-grade pupils at the end of the 1961 school year. The same test was given to all 8A pupils in the Cleveland Public School System at the same time.

The results revealed that the experimental group of seventh-grade talented pupils achieved a median grade equivalent of 11.5 while the pupils in regular 8A classes scored a median grade equivalent of 10.

The Iowa Algebra Aptitude Test was also given during the year to the same two groups of pupils. It was found that two-thirds of the experimental group of talented seventh-grade pupils had a superior aptitude for algebra, whereas slightly more than one-fourth of the regular 8A pupils were in this category. Also, practically all pupils in the experimental group could study algebra successfully, whereas only seven-tenths of the regular pupils could profit from a study of algebra.

Schools participating in the program have observed that pupils in the experimental group are stimulated to do better work in all their classes. Furthermore, it has focused attention on the importance of high scholastic achievement in the entire school.

During the present school year, the first experimental group of pupils are eighth graders enrolled in the ninth-grade algebra course. The results of this phase of the experiment will not be available until next summer.

After two years of experimentation in geometry based on recommendations of the Commission on Mathematics of the College Entrance Examination Board, a combined plane geometry and solid geometry course was developed and is being offered this year to talented senior-high-school students. Next year, the experimental group now taking algebra in the eighth grade will study this combined geometry course, which combines plane and solid geometry into a one-year course to replace the usual one year of plane geometry and a half-year of solid geometry.

This accelerated course has been an experiment in five of Cleveland's senior-high schools for two years. To evaluate this experiment, standardized plane-geometry tests and solid-geometry tests were administered to the students enrolled. The same tests were given to students who followed the regular program of one year of plane geometry and a half-year course of solid geometry.

The talented pupils (combined geometry course) compared to the pupils taking the regular course sequence achieved very well in plane geometry but scored slightly lower in solid geometry. Considering that practically all engineering colleges have eliminated the one-semester of solid geometry as an entrance requirement, the gain of one semester appears to outweigh the negligible loss of proficiency in solid geometry.

If this accelerated program, directed toward maximum development of individual potentialities, proves successful, it will give talented pupils an opportunity to elect an additional year and one-half of advanced college preparatory mathematics before high-school graduation. It also makes it possible for students whose plans do not require additional mathematics to schedule subjects that will provide more thorough preparation in their area of major interest. •

A Path to National Survival

Three Questions about Liberal Education

ROBERT W. SELLEN

In The Midwest Quarterly

LAST autumn, as every autumn for generations, a great number of colleges and universities opened their doors for another academic year and ceremonially reaffirmed their devotion to the liberal arts. And last autumn, as every autumn for decades, the faculties and students were not at all sure what is meant by a liberal education or what it is supposed to do for people.

Yet, the question of what a liberal education should be and how it may be provided is a most serious question. It is serious because more and more students are seeking admission to colleges and universities. It is important to know what a liberal education is supposed to be because we must know what we are going to try to do with all these people of varying ability.

Our culture is forcing us to reconsider the liberal arts. Our culture's emphasis is on social graces and economic goals; the college graduate finds himself hemmed in by social pressures and advertising, all urging him to be well-rounded, moderate, successful, and to join the round of outdoor barbecues and conversations which say nothing So-called liberal education has not convinced many of us that leisure is anything beyond suntans and multiple TV sets.

Apparently, students emerge as graduates from colleges and universities which do not change their habits or attitudes. Therefore, if we are to continue professing devotion to liberal education, we must answer three questions: What should liberal education be? What is wrong with it today? And what must be done to keep it alive where it still breathes—or to revive it where it has passed away?

Liberal education should be an adventure of the mind. Trade schools train people to be automobile mechanics, shorthand writers, or barbers; professional schools prepare people for law, medicine, and engineering. All have one thing in common: specific training for a specific job. When the college of liberal arts imitates them, it loses

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its identity and becomes another trade school. The object of the liberal arts, then, is not to create practitioners of a trade or profession; it is to awaken the powers of man which make him a man and not an ape.

In a society of free men only the liberal arts are a genuine education for life. Only they can awaken the individual to the use of reason in the duties of citizenship, duties more complicated than ever before. We propose to educate most Americans. Very well, if Americans are to make an immense republic a success, they must know how to govern themselves intelligently.

The free man is hardly free unless he knows what to do with his freedom, not only in choosing a career but also in choosing his nation's future. The liberal arts must be used to liberate those educated, to help them achieve intellectual and moral independence. The need is great now, for too much of American culture makes for lazy conformity; too much conformity eliminates the possibility of leadership.

Liberal education is not an easy undertaking because it is too important to be simple. We have paid little attention to it in recent years and the results are dismal.

A symptom of staleness and neglect of the liberal arts is our graduation of people without changing them; alumni emerge with no love of learning. They enter as materialistic conformists and leave as somewhat older materialistic conformists.

The worst sin of higher education is that it is honeycombed with poor teaching. One finds professors mumbling to blackboards (which they erase as they write), reciting textbooks to students who have access to the same textbooks, demanding repetition of precise words and phrases from textbooks, and committing a host of other sins. Why?

First, some professors adhere to the noble but mistaken ideal that because a class is *hard* it is a good class. Acquiring an education is not easy if it is done well, but professors must not insist on trivia.

Second, many professors adhere to the absurd notion that college is such a serious business that it cannot possibly be enjoyable. A connecting problem is that many professors do not enjoy learning or conducting classes and rationalize staying in their jobs by saying that education is nothing to be taken lightly. So doing, they deny exactly what higher education stands for.

Interest in or attention to other duties distracts a number of otherwise excellent professors. This is common in large universities where prodigious amounts of productive research are demanded, or where professors acquire prestige and cash by serving as consultants to government or private industry or by serving in administrative capacities. Here again, liberal education suffers.

Personality defects contribute to the problem. Some professors have no interest in other people, not even in their students. A few neurotics are antagonistic, and many are insensitive to the delicate task of awakening young minds lulled by a dozen years in the sandpile world of the public schools.

Finally, the economic situation of the professor is important, and in many small colleges and impecunious state schools this is grievous. If he is underpaid and his department budget starved, if he works with primitive facilities and tools, he is unable to give his students anything approaching a decent education. Colleges failing to nurture an "original mind and the creative spirit" among thir faculty members are more guilty than low high-school standards in the death of the liberal arts.

WHAT MUST BE DONE

What must be done to breathe new life into the liberal arts? There must be sharp changes in the administration. Constant selfstudy and selfcriticism are basic. To improve, one must face his faults without flinching. Once sins are discovered, there must be a genuine willingness to change, to experiment, to be a bit radical. One must do more than trifle with courses and hours and advanced standing and transfer credit. Such bureaucratic necessities are not the heart of education. The study must be of ways to stimulate student thought and originality and to maintain freedom from professorial indoctrination.

Assuming that this spirit of willingness to change is created, the colleges must continue by rewarding those who awaken students intellectually. Experience proves that if professors are paid to publish turgid prose or to grow senile, they will publish many volumes of turgid prose or will obediently grow senile. If paid to lead students to intellectual adventure, they will find ways of doing it.

With rewards for doing a good job must come the opportunity to do a good job: the libraries and laboratories, the money for books, journals, meetings, and time. Trying to help young minds develop independence and direction is a slow process and cannot be accurately counted in statistical terms such as "student-contact-hours."

There must be a change in the conditions surrounding students. Idlers, clowns, and trouble-makers must be kept out or eliminated if they creep in. The quickest way to improve faculty and student morale is to prove to faculty and students that they are members of a good organization.

Students must be given a chance to discover that colleges are institutions of learning. The entire atmosphere in which they grow toward maturity is charged with social activity; they arrive at college and find it the same. Such frills and distractions as Greek-letter organizations and intercollegiate athletics contribute nothing to liberal education, cost money which is ill-afforded, and distract students from what they came to seek. To the argument that elimination of fraternities and sororities would harm social life, the reply is that there is a surfeit of it now and that students coming from our culture will create quite enough social activity on their own.

Change must come, too, in professional attitude. The only way to cultivate a love of learning in students is to show them that learning is not only important but enjoyable. Professors must explore their own fields in research, wide reading, and professional meetings. A man who is himself learning is the only one who can encourage students to learn. Professors who do not enjoy professional activity—including constant contact with students—must get out of the profession. They do incalculable harm.

Finally, classes designated as higher education must be aimed at liberating the student rather than at indoctrinating him. He must realize the necessity of inquiring minds in a free society that wishes to remain free. The crises men face today demand that Americans really *be* free men, able to make rational choices. The twentieth century is one in which the bigoted and intellectually lazy will commit suicide, and, if we fail to reform ourselves, take the rest of us with them. The liberal arts, if used, are a path to national survival. •

• The typical small American liberal arts college could increase its enrolment by 50 percent without erecting a single new classroom or laboratory, a study by Educational Facilities Laboratories, published this spring, indicates. The study, covering more than 60 midwestern colleges, showed that the average classroom in the surveyed institutions was in use only 17.6 hours a week and the average laboratory, only 10.8 hours a week. But this seeming waste of instructional space can be traced, at least in part, to what the educators consider desirable attributes of a small college: small classes and the effort to maintain close, personal contact between faculty and students.

"There will always be colleges which place a high value on low pupil-teacher ratios and small classes," the report states. "But these institutions should have a clear understanding of what these luxuries cost, who pays for them, and what they may have to do without as a result."

• The research mania is robbing collegians of the teaching they deserve. The modern teacher flees to the library and cries "research" as the medieval thief fled to the church and cried "sanctuary."—Jacques Barzun in *Harpers*.

Music Creativity in the Elementary School

NANCY RUDOLPH

In Education

IN music as in all arts there is need for expressive feelings, experiences, or skills. Teachers, being adults and harnessed by social mores, often fail to realize that a single verbal suggestion or the "tone" of a room can tap a great reservoir of imagination in a child.

Children must be stimulated by music to the extent that listening to it initiates intellectual or physical response. Even the shiest child in the room will want to try the Russian kicks in the "Nutcracker Suite." Even though classrooms lack space for movements, the use of three or four children at a time will expedite participation. Once children have been given this freedom for movement, they experience discomfiture at remaining passive to all forms of music listening.

Making musical instruments is one creative project that is particularly interesting to elementary-school children. The instruments to be constructed can be an outgrowth of the study of the origin of music. This was done in one of my elementary classes and the day the instruments were presented was filled with excitement. Each child presented his instrument and told how it was made and why certain features were employed.

The children grouped the instruments into categories of plucked, struck, or blown, listened to the instruments carefully and arranged them in order of their pitch and tone quality. Tuned bottles became train whistles; maracas provided Latin American rhythms; other instruments provided special sound effects. Finally, and most fun of all, the children sang an African folk song accompanied by their primitive orchestra.

Composing original songs is another activity with strong appeal. Our initial venture occurred several years ago when we could not find an appropriate song for the Easter season. The original composition proved such a success that in following years we did it again and again, each year sharing our "masterpieces" with other classes. Because very often time would not permit composing music for each

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child's words, many determined youngsters enlisted family members in putting their songs on paper. It is a great compliment to teaching when children carry their enthusiasm and inspiration home and involve the entire family.

In preparing for the composition of a song, much initial poem construction is needed. This preparation usually requires much experimentation before a satisfactory poem is advanced. The result is a class project where each child writes on a specific topic and the entire class determines its favorite. Repeated reading of the poem is required to get agreement on meter. Then the class sings the first line. When the class agrees on a tune, the teacher indicates the pitch on the staff with a dot. Each line is noted in this manner. When we have the general line (melody) of the song, we go over it for improvement. For example, if the words tell about a bird "high in the sky" everyone asks, "Is the melody appropriate?"

Once satisfied with our tune, we determine the time signature and mark the accents for the various measures. These musical discriminations can often be made by first- and second-graders. Third-grade children are able to determine many other needed musical symbolisms.

Another creative form of composition is telling a story with music. Children can write their own story or pick a favorite from their reader. They can select an appropriate motif for each character and, with the teacher's help, write it down for future use. This makes a very natural introduction to discussion of themes and motifs in studying the works of master musicians.

In this age of rockets, television, and mechanical toys, children are not interested in vocal drills and endless repetitions of a given song. We must provide a challenge in classroom musical environment. The space-oriented child needs to feel the thrill of accomplishment—of discovering something new. He can take pride in having the class sing his song, or being chosen as the Sugar Plum Fairy when mothers are invited to the Christmas party. All these activities make music come alive. It is creative and therefore becomes a living art expression. •

MANY colleges seem to be pathologically afraid of the creative arts and will admit them only if they are thoroughly sterilized. In music the fields of music theory, history, and esthetics are acceptable. Even composition is acceptable if it is effectively insulated from the sin of performance. Some universities would seem to say, "Let no son of Alma Mater soil his hand at the piano or contaminate his fingers with cobalt blue."—*Howard Hanson.*

Give the "Devil" His Due

Rewarding Creative Thinking

E. Paul Torrence

The Gifted Child Quarterly

RESEARCH has revealed repeatedly that people tend to learn and develop along whatever lines they find rewarding. For some time I have been aware of the unfortunate consequences which occur in some schools where almost all rewards go to athletes, scholars, or to the lady's man.

The tragedy of rewarding only certain talents rather than a variety of equally valuable or more valuable ones strikes me with even greater force as I read letters from parents of creative children, high-school students, and creative adults.

For example, there was the case of the boy who at four or five was so precocious that he was frequently taken to be in third or fourth grade. Now, at thirteen, he is suspected of being mentally retarded. Some of the trouble started during his first year in school when he wanted to change the drawings his teacher gave him to color; or to add things like hats, boots, and the like to the teacher's drawings.

While the rewarding of a variety of talents might be useful in solving a number of educational problems, I believe it is clearly involved in the perennial problem, "What shall we do about the boys?"

E. Paul Torrence is Director, Bureau of Educational Research, University of Minnesota, Minneapolis. Reported from The Gifted Child Quarterly, *V (Winter 1961), 115–18, 120.*

One educator recently advocated that boys be kept out of school a year or two longer than girls. He cited evidence that girls are the superior of boys in practically every area of development until they are well in their teens, specifically mentioning handwriting, verbal expression, vocabulary, muscular control, reading, and written composition.

Despite this evidence, my associates and I find that in the early school years boys are superior to girls in several important ways. They are superior in the ability to think independently, constructively, and creatively.

From first through third grades, boys become increasingly superior to girls in almost all the creative thinking abilities for which we have devised measures. By the fourth grade, however, boys begin losing their battle against conformity to behavorial norms and show a sharp measured decrement in most of these abilities.

Between the first and third grades, at the same time that boys become increasingly more inventive and curious, peer pressures against boys with clever and original ideas are increasing. Girls appear to learn earlier than boys how to gain peer acceptance of their ideas and to avoid being labeled "silly" or "crazy."

From the evidence accumulated, it seems that much in our present educational system tends to alienate boys, especially the highly creative ones, from their peers and teachers.

Educators might do well to consider giving parallel treatment to developing thinking abilities (both creative and evaluative) along with the development of the memory and conformity to behavorial norms. This would involve, among other things, rewarding creative thinking. If in the early school years boys were rewarded for some of the things in which they appear to excel, they might be more willing to master language and other conforming skills about which there is concern. Why not give the "devil" his due?

Is it necessary to retard the mental development of boys by keeping them out of school a year or more longer until they can be coerced into greater conformity? Why not reward the creative thinking of *both* boys and girls and thereby encourage the healthy development of all their mental abilities?

PRINCIPLES TO APPLY

How to reward thinking is a difficult question. I would like to suggest the following principles which I believe both parents and teachers can learn to apply.

Be respectful of unusual questions.—Nothing is more rewarding to the child asking questions than to find answers. Questions reflect a "mind hunger" that must be satisfied lest the mind be starved. Although the need should be met immediately, there is much we can do to enrich the period between the question and the answer. This means teaching the skills of inquiry. Children need to know how to sustain a question, to play with it, refine it, and accept the questioning mood without the need for ready-made answers from teachers or parents.

When setting out to be respectful of questions children ask, one must be prepared for some shocks. It should be accepted as normal and desirable that the teacher or parent will not be able to answer many of the questions asked. Teachers and parents should not feel threatened but should find enjoyment in a mutual searching for answers.

RESPECT UNUSUAL IDEAS

Be respectful of the unusual ideas of children.—Children who are stimulated by the creative approach will see many relationships and significances that their teachers miss, and they will express ideas teachers will not be able to evaluate. Thus, it is difficult to reward such thinking. It is our creatively talented children who suffer most such unrewarded effort.

A recent workshop group suggested that this principle should read: "Stimulate unusual or original ideas." I reiterate, however, that we should not stimulate such thinking unless we can be respectful of it.

APPRECIATE IDEAS

Show children that their ideas have value.—Many teachers and other adults feel that children are not capable of thinking of ideas that have value. These individuals will not be able to reward creative thinking in children. I suggest that such individuals be alert for a while to recognize new ideas from children. Children can be shown that their ideas have value if we communicate them to proper groups or individuals, if we display them, and if we give credit for them. There is also the matter of intrinsic rewards. We have said much about the role of reward and punishment in learning but little about the lure of discovery and the role of curiosity and interest. This is the area where rewards have been neglected.

Provide opportunities for self-initiated learning and give credit for it.—One mark of the highly creative individual is his selfstarting ability. Strong curiosity and exploratory tendencies suggest that all, or almost all, children have this selfstarting ability. The problem is to keep it alive. It is hindered by overly detailed supervision. It is possible that too much reliance is placed on prescribed curriculums and that we need to make more effort to appraise and credit growth resulting from the student's initiative.

NONEVALUATED PERIODS

Provide for periods of nonevaluated practice or learning.—We do not have to evaluate everything. There need to be periods when the individual can learn without threats of being evaluated. External evaluation is always a threat and creates a need for defensiveness. This makes some portion of the individual's experiencing or sensing denied to awareness. Thus, there is lacking the openness necessary to the production of new ideas.

We find consistent validation for this principle in experiments conducted in the first, second, and third grades. It may be that on reaching the fourth grade a child is so conditioned to being evaluated and so dependent on external evaluation that he is not released when told that the initial learning and exploratory phase is "off the record." It would have to be demonstrated to older children that the practice was really "off the record," before they would respond to the nonevaluative condition.

The teacher, Plato, said: "What is honored in a country will be cultivated there." Thus, if children are to be challenged to learn and think creatively, we must honor this kind of achievement. A healthy society and a humane education, however, requires that we honor all kinds of talent which contribute to our welfare. •

Improving Relations between High Schools and Colleges

RAYMOND B. FOX

In The Clearing House

THE wide dissemination of misinformation concerning the "closing college doors" has served to frighten parents, high-school administrators, teachers, and students. Improved relations between high schools and colleges are urgently needed to dispel the many erroneous impressions concerning college entrance requirements and to eradicate unreasonable fears.

In the past, relationships between the high schools and colleges were seldom harmonious. The fewer the relations between the two, the better, seemed to be the attitude on the part of both. Gradually, both high schools and colleges grew to recognize that they were striving for the same ends and that achievement of goals would be greatly enhanced through cooperation.

The changing nature of the American college student is perhaps the major factor forcing colleges to reexamine their philosophies, entrance requirements, and programs.

World War II and the GI Bill drastically changed the nature of college students, giving rise to the philosophy that higher education should provide diversified programs to foster maximum growth in all individuals having a high-school diploma and wishing to attend college. In many colleges, this replaced the philosophy that higher education should be regarded as a privilege reserved for the intellectually elite.

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With the growing awareness that the challenge of educating each individual to his maximum capacity can best be met by mutually attacking the problem, many high schools and colleges have cooperatively developed several innovations which appear promising:

Employing qualitative rather than quantitative admission criterions. Admission criterions in the past generally overemphasized data such as grades, class rank, and number of units completed in specific subject-matter areas. Criterions of that nature not only prescribed what programs college-preparatory students had to pursue in high school, thereby severely restricting the prospective college student's curriculum and preventing him from developing his own special interests, but also were based on the fallacious assumption that grades, class rank, and courses in one high school are comparable to those in other high schools.

Some colleges no longer utilize such quantitative admission criterions, basing their decision on the fact such data is often an invalid measure of a pupil's potential as a college student. They have adopted admission criterions which stipulate the qualities which prospective students should possess rather than the means by which such qualities should be developed. For example, instead of requiring four units of English and two units of a foreign language, they require a mastery of basic communication skills and proficiency in a foreign language.

When such qualitative admission criterions are used, the college's role is that of indicating the desirable ends. The high school has complete freedom for experimentation to develop whatever means it believes will best achieve those ends.

GREATER FLEXIBILITY

Providing greater flexibility in entrance criterions and placement. Stemming from student complaints that much of their college work is duplicated in college, many colleges permit students to take advanced - standing examinations, thereby enabling entering students to gain college credit, to be placed in advanced college courses, and eliminate undesirable duplication. Such examinations are now used widely and are growing in popularity.

Many colleges also give exemption examinations in general-education subjects. If the entering student passes the examinations, he is excused from taking the course. However, he is not given credit for courses he is excused from taking. The advantage is that the student is permitted greater election in his college work.

Providing greater flexibility in college-admission criterions usually results in greater reliance on test scores. Despite their many weaknesses, standardized tests do stress proficiency in a subject-matter area, not mere accumulation of credits, which seems to be a step in the right direction.

Improving continuity between high school and college. The problem of moving students through different elementary schools, secondary schools, and colleges with a minimum of overlapping and duplication has increased with growing enrolments. Because the improvement of continuity demands that personnel on each level know what is being done on the other level, efforts to improve communication are being made through more meetings between personnel from different levels, formation of committees to develop curriculum guides, and other similar methods.

Informing high-school students of college opportunities and re-

quirements. Many high schools sponsor a precollege night for the purpose of providing information to students and their parents concerning problems of college selection, admission criterions, costs, scholarships, and loans. Representatives of area colleges meet with interested students and parents to answer questions about their institutions. Precollege nights have proved successful in creating interest in college education and in acquainting students with academic and scholastic requirements for continuing their education.

To be truly effective, the precollege night must be followed with individual counseling provided by competent high-school counselors. There should be a competent full-time guidance person for every 250-300 pupils. The guidance personnel should be allowed enough time to keep themselves up-to-date on changing college admission criterions, costs, available scholarships, and loans.

FOLLOW-UP INFORMATION

Securing follow-up information on high-school graduates who attend college. In contrast to past years, when attempts were spasmodic at best, many high schools have begun to use a variety of techniques for securing information concerning progress of their graduates who attend college. A common method is that of having the area colleges which most students attend report back regularly to the high schools. Some high schools also send questionnaires to all of their graduates who are currently enrolled in college, asking them to evaluate their high-school preparation. Information obtained in this manner has several weaknesses; however, it may prove of value in the improvement of curriculum and instruction.

I recently asked students in my classes to list the major difficulties they encountered in making the transition from high school to college. The following difficulties are ranked according to the number of times they were mentioned:

Developing good study habits, especially ability to study independently. Studying for understanding rather than memorization. Adjusting to accelerated classes and greater competition. Lacking preparation in writing, especially term papers and essay examinations. Being unable to type. Learning how to take notes on lectures. Selecting courses. Limiting participation in social activities. Overcoming the fear of college instilled by parents and teachers. Understanding the organization of a university (course numbering, classes not meeting every day, departmentalization, etc).

Some of the difficulties could best be prevented in high school; others, in the colleges. Blaming each other for student deficiencies is a nonproductive pastime. The importance of our goal demands that we do everything in our power to improve the relations between high schools and colleges. •

★ With Education in Washington ★

THE EDUCATION DIGEST WASHINGTON BUREAU

Scholarships vs. Loans.—A preference on the part of Congress for student loans rather than college scholarships is becoming increasingly evident. Several legislative measures that propose to aid higher education are held up, at this writing, because they would include undergraduate scholarships. On the other hand, graduate fellowships are generally acceptable to Congress, and those enthusiastic about student loans are willing to accept only partial repayment if the borrowers enter a specified field after graduation.

To the extent that a graduate has his loan forgiven, he has received a scholarship, of course, but this form of scholarship appears to be politically palatable. Although at present it applies only to teachers who borrowed under the NDEA Student Loan Program, Congress is considering application of the same principle to a pending bill that would aid graduate schools preparing students for the health professions. The young physicians and others who borrow from the loan funds established under this bill would be forgiven half their loan (at the rate of 10 percent per year) if they practiced in a doctor-short community or worked for a government agency or nonprofit organization.

This is the formula of the NDEA student loans. The law requires the institutions making the loans to give special consideration to students preparing to teach in public elementary and secondary schools, as well as to students with superior backgrounds in science, mathematics, and modern foreign languages. In the 1960-61 school year, the second full year of the program's operation, nearly half the student borrowers—almost 70,000 in number—were preparing to teach.

As of the end of June 1961, nearly 13,000 student borrowers had repaid about $2 million to the loan funds set up at colleges and universities. This was eight times the amount actually due, borrowers not being required to start repayment until one year after graduation and then having a decade in which to repay their loan plus 3 percent interest. Both interest and principal repayments go back into the loan funds for the next student borrower.

In addition to the students who have begun repayment, some 4,000 have applied for partial cancellation of their loans because of full-time teaching service in public elementary and secondary schools. The law provides for 10 percent cancellation of the loan for each year of teaching, up to half the total. As of June 30, 1961, the amount cancelled under this provision was over $233,000.

This total is certain to rise. There is talk here of amending the NDEA to provide for 100 percent cancellation of these loans if the borrowers continue teaching for 10 years. The colleges, which also need teachers, would like the forgiveness provision of the law extended to include their young faculty people. And the spokesman for private schools are urging an amendment to remove what they regard as a discriminatory restriction of loan cancellation to those who enter public education.

Federal Impact.—Soon after Congress convened in January 1961, President Kennedy met with a few leaders of the civil rights movement. When he told them he would welcome a written statement outlining, point-by-point, the specific actions his Administration could take in this field, a brief memorandum was drafted and forwarded to the President on February 3. At a meeting in the White House with his principal advisors three days later, a more detailed report was requested of items that could be handled without legislation.

In the field of education, the subsequent memorandum emphasized federal grants for construction and operation and maintenance of local schools that are crowded by children of servicemen or federal employes. This is the politically popular program of grants for "federally impacted areas" under Public Laws 815 and 874. The 11 southern states have received nearly $90 million for school construction since P.L. 815 was passed in 1951. Under P.L. 874, they are receiving about $60 million in operating funds for the current year.

Civil rights leaders have long argued that the Administration should require desegregation of the schools receiving these federal funds. Under the Eisenhower Administration, after the Supreme Court's 1954 decision, all the schools on military bases were officially desegregated, even those operated by state and local school authorities which otherwise resisted the Court's command. But there the matter rested until recently.

A few months ago, Rep. Adam Clayton Powell (D-N.Y.), the veteran Harlem Congressman who has risen the seniority ladder to become Chairman of the House Education and Labor Committee, organized an Ad Hoc Subcommittee on Integration in Federally Assisted Education. Rep. Dominick V. Daniels (D-N.J.) is chairman. The new Subcommittee includes Rep. Edith Green (D-Ore.), a former teacher who is being mentioned as a possible successor for HEW Secretary Ribicoff, and Reps. James Roosevelt (D-Calif.), Herbert Zelenko (D-N.Y.), John H. Dent (D-Pa.), Ralph J. Scott (D-N.C.), Charles S. Joelson (D-N.J.), Peter Freylinghuysen, Jr. (R-N.J.), Robert P. Griffin (R-Mich.), Peter A. Garland (R-Me.), and John M. Ashbrook (R-Ohio).

When Secretary Ribicoff testified at the Subcommittee's first public hearing, he opposed adding antidiscrimination amendments to pending education legislation on the grounds that such amendments would defeat needed measures and thus cause more harm than good. Rep. Roosevelt, joined by Reps. Zelenko, Dent, Daniels, and Griffin, thereupon demanded that the Administration either withhold financial aid from all states, districts, and institutions that condoned segregation or else support legislation to achieve the same end.

The Secretary—who is planning to run in November for a seat in the Senate against an incumbent, Sen. Prescott Bush (R-Conn.), who defeated him in a similar race six years ago—pointed out that, without publicity, he had banned segregation at NDEA-financed summer institutes, which was one of the proposals suggested at the White House meetings early last year. He promised to see how much further his authority would extend, and the Subcommittee suggested that he return in two weeks with his answer.

Small Steps.—Mr. Ribicoff's subsequent reply continued a bit further along the path outlined in the memorandum submitted to the White House in 1961. He announced, first, that the Department of Justice was exploring the possibility of bringing a lawsuit against a segregated school district receiving funds under P.L.'s 815 or 874. When a group of Negro servicemen successfully sued the county school commission of Rutherford County, Tenn., on this very point a few years ago, the Defense Department claimed that its regulations prohibited it from extending any legal assistance, although substantial financial savings subsequently accrued to the Air Force when it was able, as a result of the suit, to cease transporting colored pupils to another segregated school 14 miles away.

The Secretary then disclosed that, on rereading the statutes, his lawyers had suddenly come on what looked like a loop-hole. With respect to some 45,000 children whose parents live as well as work on federal property, Congress had directed the Commissioner of Education to provide schooling if "suitable free public education" was not available. In about 45 instances in 15 states, this clause has been invoked because of geography or fiscal provisions of state law.

Henceforth, the Secretary announced, he would consider segregated schools "unsuitable," although he conceded that this was not what Congress had in mind when the law was originally passed in 1952 and that the question had never been considered when it was renewed and amended as recently as last year. He further pointed out a number of problems implicit in his decision:

1. It would not affect children not living on federal property (the majority), including those whose parents would reside at a military base, for example, if sufficient on-base housing were available.

2. In some situations, very few children live at the federal instal-

lation. Would a small unsegregated school on the post be educationally superior to a large segregated school run by a nearby community?

3. Even if unsegregated schools are provided on federal property, pupils are not required to attend. If parents then prefer to send their children to nearby segregated schools, these could continue receiving federal funds while the on-post school had empty seats, unless Congress changed the law to apply the "suitability" provision to all 246 "federally affected" school districts in the 11 southern states.

4. Where a school district is moving toward integration, hasty federal action might retard the process. He did not envisage federal action promoting desegregation, although this has occurred in a few places, notably Pulaski County, Ark.

Nothing could be done during the current school year, Mr. Ribicoff contended, and nothing would be done during the 1962-63 school year, during which Congress will be debating extension and possible revision of P.L.'s 815 and 874. Unless Congress votes to the contrary, then the Secretary of HEW—whoever he might be—would finally take action in September 1963.

But it will not be necessary to wait that long to find out what the House Education and Labor Committee thinks of Secretary Ribicoff's tentative ruling. Chairman Powell has directed the Integration Subcommittee to report this month, on the eighth anniversary of the Supreme Court's decision in *Brown v. Board of Education.*

Bailey Bows.—Despite a series of public hearings and formation of a bipartisan committee of "big names," the school assistance bill put forward by Rep. Cleveland M. Bailey (D-W.Va.) (EDUCATION DIGEST, March, p. 53) has failed to attract any significant degree of support, in Congress or out. Yet when Mrs. Agnes E. Meyer recently organized the National Committee for the Support of the Public Schools with some of the same "big names" who had supported the Bailey bill, the gracious Congressman praised her publicly and welcomed her to the fray.

However, Mrs. Meyer's group, which includes former President Truman, Mrs. Eleanor Roosevelt, and Alf Landon, former Republican candidate for President, does not intend to endorse or support legislation. Instead, it contemplates a long-range educational effort focused on the need for adequate financial support of the schools.

Congressmen who support federal aid if it is confined to "needy districts" are flourishing the poll that the National School Boards Association has made of its members. Of the minority who returned the questionnaire, slightly more than half voted *against* general federal aid. But about one-third of those voting affirmed that their particular district lacked the fiscal capacity to finance first-class education. •

CHANGES IN SUPERINTENDENCIES:

Waterloo, Ia.: **George W. Hohl,** superintendent at Passaic, N.J., has been named successor to **Jack M. Logan,** retired.

Corpus Christi, Tex.: **R. L. Williams,** has announced his resignation, effective June 30.

COLLEGE PRESIDENTS:

Wheaton College, Norton, Mass.: **William C. H. Prentice,** formerly dean at Swarthmore College, Pa., has succeeded the late **A. Howard Meneely.**

St. Andrews Presbyterian College, Laurinburg, N.C.: **Ansley Cunningham Moore** has been inaugurated as first president of this new college.

William Jewell College, Liberty, Mo.: **Walter Pope Binns,** president for 19 years, has announced his retirement on July 1.

TEACHER-TRAINING INSTITUTIONS:

University of Wisconsin, Madison: **A. S. Barr,** professor of education, will retire in July. He will continue as editor of the *Journal of Educational Research* and the *Journal of Experimental Education.*

Ohio State University, Columbus: **Theodore J. Jenson** has been named chairman of the department of education.

OTHER CHANGES AND APPOINTMENTS:

Allan M. West has been named director of the NEA's new Urban Services Project.

Donald W. Robinson, chairman of the Social Studies department, San Carlos High School, Calif., has been named associate editor of *Phi Delta Kappan,* effective in September.

Raymond F. Howes, a staff associate of the American Council on Education and editor of *Educational Record,* has resigned to become assistant to the chancellor, University of California, Riverside.

New Ford Grants

Two recent grants announced by the Ford Foundation will finance extensive experiments to try to bring order to the complexities of college-admission problems.

A $150,000 grant has been given to the Educational Testing Service of Princeton, N.J., to enable it to introduce in seven states an electronic student-record system that reports a student's total performance from kindergarten through high school. The system, which has been developed during the past three years in Georgia, will be introduced in Arizona, Florida, Illinois, Indiana, Michigan, Vermont, and Washington. The seven-state test is aimed at establishing a model for a national system of student transcripts.

The second grant, for $125,000 to Williams College, will finance a 10-year study of the achievement of "calculated risk" students—those admitted with less-than-outstanding grades and test scores but with promising qualities that defy scientific measurement.

With the grant, Williams will select up to 10 percent of its freshmen from students who are not outstanding by the conventional criterions for college admissions but who show strength in other ways. The college will study the academic and career achievements of such students for 10 years and compare their records with those of a control group of students admitted on the usual grounds of academic achievement. The aim will be to discover broader criterions for college admissions than grades and test scores.

The Ford Foundation also has announced a grant of $3.5 million to the Oregon State Department of Education and $750,000 to the University of California, Los Angeles, for improved patterns in the preparation of school teachers. The Oregon grant is aiming at a statewide school-improvement program as well as improved teacher education.

Another series of grants, totaling $1,535,000 has been given to five universities for experiments to recruit students for college-teaching careers. The recipients are: University of Arizona, University of Denver, University of Georgia, Southern Methodist University, and Tulane University.

U.S. College in Europe

THE first private American college in Europe, the American College in Paris, will open next September.

The nonprofit, accredited college will offer a two-year liberal-arts curriculum to the sons and daughters of U.S. families residing in Europe and to a limited number of European students.

Officials of the new college said the institution was established to "solve the difficult problem facing the American student who wants to start his college career in Europe and transfer at a later date to a good university in the U.S." The student body will be drawn from the 4,000 or so Americans graduating annually from private and public secondary schools in Europe.

The faculty of the new college will be drawn principally from American professors who are or have been teaching in U.S. universities, the officials said.

Pay Board Members?

SHOULD school-board members be paid a salary? This question is being discussed now as a result of legislation under consideration in Massachusetts and a statement by a retiring president of the Chicago board of education.

The Massachusetts proposal would alter state law to permit school committee members to be paid.

William G. Caples, the former president of the Chicago board, said that most board members find it difficult to devote sufficient time to school business and also hold their regular jobs. As a solution, Caples recommended that a study be made to determine the feasibility of paying salaries and to ascertain how, if this were done, the positions could be free of politics.

Arguments both for and against the proposal are being heard. A recent U.S. Office of Education study shows that most educators and board members do not favor compensation.

Unesco and Technology

THE establishment of demonstration centers in various parts of the world to enable educators and educational officials to see how new techniques—radio, television, films, electronic computers, teaching machines—can be applied to school programs has been recommended by an international meeting in Unesco House in Paris.

The 10-day meeting in March was attended by educators and telecommunications experts from 15 countries.

The participants felt that demonstration centers are needed before such new techniques can revolutionize education to any extent. Even though they foresaw pupils in the future learning by machine, receiving their marks from computers, watching lectures on television, and tuning in on a language course broadcast from a satellite in outer space, the experts emphasized that these changes are not just around the corner.

The demand for education, the meeting stressed, is so enormous that all traditional methods must still be employed as well.

West Virginia Law

WEST VIRGINIA has passed what is believed to be the first legislation in the nation's history designed to require special occupational training for unemployed boys in the 16-17 age bracket leaving school without a high-school diploma.

The new drop-out law, designed by Phares E. Reeder, executive secretary of the West Virginia Education Association, establishes a pilot project for a one-country tryout in the state in the summer of 1962. If the pilot program succeeds, it will be developed on a broader scale.

Changes and Trends

A RECENT survey of secondary-school principals by *Education USA* editors, reveals that individual programing for students, relating studies to student abilities and future needs, is the most important change now occurring in the secondary field.

The single, most prevalent trend in the field is team teaching. And the major task of secondary-school principals today is keeping and improving on the balanced program of a comprehensive high school, despite pressures from the college-oriented and problems from the growing number of potentially unemployed youth.

DATES OF THE MONTH:

May 20-23, National Congress of Parents and Teachers, Portland, Ore.

DATES OF THE COMING MONTHS:

June 26-29, American Home Economics Association, Miami Beach, Fla.

July 1-6, National Education Association, Denver, Colo.

Oct. 8-12, National Council on Schoolhouse Construction, Denver.

Oct. 12-17, Department of Rural Education and Division of County and Rural Area Superintendents, NEA, Wichita, Kan.

Oct. 15-19, Association of School Business Officials of the United States and Canada, Dallas, Tex.

Nov. 21-24, National Council for Social Studies, Philadelphia, Pa.

Nov. 23-24, National Council for Geographic Education, Chicago, Ill. •

New Educational Materials

Elementary School Organization: Purposes, Patterns, Perspective. Washington, D.C.: Department of Elementary School Principals, NEA, 1962. Pp. xi + 157. $4.00.

This 1962 Yearbook of the Department of Elementary School Principals, which discusses past, present, and future organization of the elementary school, predicts that the "hold of the graded system—and the grading system will be broken."

By far the longest chapter in the book, entitled "Toward Improved School Organization," is from a manuscript prepared by John I. Goodlad. In this discussion, branches of increasing specialization are seen growing out of the core of common learnings in the elementary school. But in order to make effective the essential reform of subject-matter studies, now in progress, Dr. Goodlad warns that the schools themselves must be reorganized. And he outlines three working "models."

The final chapter of the book, called a "could-it-be" chapter, envisions a school completely free of administrative patterns. Some of the kinds of flexibility which may be achieved in tomorrow's schools are suggested.

Education and the Common Good; A Moral Philosophy of the Curriculum. Philip H. Phenix. New York: Harper & Brothers, 1962. Pp. 271. $4.00.

"The central purpose of all education," says Dr. Phenix, "should be the transformation of persons from the life of selfcentered desire to that of devoted service of the excellent, and at the same time the creation of a democratic commonwealth established in justice and fraternal regard rather than in expediency."

The author's proposals for a new curriculum are centered around his interpretation of intelligence, creativity, conscience, and reverence. From these four concepts come the human characteristics and values essential for a sound education.

The author calls the book an "essay in synthesis." It not only challenges the reader to understand the major problems in contemporary culture, it is also an invitation to integral thinking about education.

The World of Communism. Rodger Swearingen. Boston: Houghton-Miflin, 1962. Pp. x + 278. $2.32 cloth; $1.32 paperbound.

This is an introductory text designed to answer questions American high-school students ask about Communism. The author uses an interesting narrative supplemented with charts, maps, and pictures to present information on the Soviet political system. He compares the growth of Soviet and United States economies, depicts the nuclear armaments race, describes Communist propaganda and technological achievements, and presents biographical information about Soviet and Chinese leaders.

Except for a minimum of background material encountered with the chapter topics, the content emphasizes present-day events, people, and political boundaries.

Rodger Swearingen is director, Soviet-Asian Studies Center, University of Southern California.

OTHER MATERIALS RECEIVED

ELEMENTARY

The New Basic Readers ("Sixties" Edition). Chicago: Scott, Foresman and Company, 1962. Series includes: In pre-reading level, **We Read Pictures, We Read More Pictures,** and **Before We Read,** $.68, $.68, and $.72;

in pre-primer level, **Sally, Dick, and Jane, Fun with Our Family,** and **Fun Wherever We Are, $.68, $.72, and** $.76, respectively; in junior primer level, **The New Guess Who, $1.56;** and in primer level, **Fun with Our Friends,** $1.72. Teachers editions also available.

Tekla's Easter. Lillian Budd. Chicago: Rand McNally & Company, 1962. Pp. 58. $2.95.

Phonics for Children. Agnese Dineen Mitchell. New York: Vantage Press, 1962. Pp. 62. $2.00.

French in the Elementary School; Five Years' Experience. Harold B. Dunkel and Roger A. Pillet. Chicago: The University of Chicago Press, 1962. Pp. 160. $3.75.

How to Help Your Child in Grade School Science. Frieda E. Van Atta. New York: Random House, 1962. Pp. x + 372. $5.95.

Jorge el Curioso (Curious George). H. A. Rey. Boston: Houghton Mifflin Company, 1962. Pp. 57. $3.00. The well-known story translated in Spanish for young readers by Pedro Villa Fernandez.

SECONDARY

Teaching about Communism. Edited by Louis J. Rubin. Pp. 322. Available from Ventura County Superintendent of Schools, Court House, Ventura, Calif. $3.50. A resource guide for teachers.

Southern High Schools and Jobless Youth. Samuel P. Wiggins. Nashville, Tenn.: Center for Southern Education Studies, George Peabody College for Teachers, 1962. Pp. 64. $1.00.

Experimental Chemistry for Boys and Experimental Biology for Boys. Morris Goran. New York: John F. Rider Publisher, Inc., 1962. Pp. 144 each. $3.45 each.

Ohio, the Buckeye State. (Second Edition.) William R. Collins. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1962. Pp. xiv + 370.

Modern Algebra: Structure and Method, Book 1. Mary P. Dolciani, Simon Berman, and Julius Freilich. Boston: Houghton Mifflin Company, 1962. Pp. xi + 552. $4.68.

Principles and Practices of Secondary Education. (Second Edition.) Vernon E. Anderson and William T. Gruhn. New York: The Ronald Press Company, 1962. Pp. viii + 513. $6.75.

COLLEGE

Preparing for College Study. Norman A. Fedde. New Haven, Conn.: Readers Press, Inc., 1962. Pp. 155. $1.75.

The World Role of Universities. Edward W. Weidner. New York: McGraw-Hill Book Company, Inc., 1962. Pp. xii + 366. $6.95.

The Education of Historians in the United States. Dexter Perkins and John L. Snell. New York: McGraw-Hill Book Company, Inc., 1962. Pp. xiii + 244. $4.95.

The University and Community Education. Kenneth Haygood. Chicago: Center for the Study of Liberal Education for Adults, 1962. Pp. vii + 57.

College Students Live Here: A Study of College Housing. Harold C. Riker and Frank G. Lopez. New York: Educational Facilities Laboratories, Inc., 1961.

A General Pattern for American Public Higher Education. T. R. McConnell. New York: McGraw-Hill Book Company, Inc., 1962. Pp. xi + 198. $5.95.

GUIDANCE

Planning Your School Life, Planning Your Life's Work, and **Planning Your Future.** Raymond N. Hatch, Morgan D. Parmenter, and Buford Stefflre. Bloomington, Ill.: McKnight & McKnight Publishing Company, 1962. Pp. 79, 95, and 79. $1.00, $1.20, and $1.00, respectively. A series of three guidebooks for group guidance activities.

How to Get into College and Stay There. Edited by Esther E. Diamond. Chicago: Science Research Associates, Inc., 1962. Pp. 89. $1.25.

Nurses and Other Hospital Personnel; Their Earning and Employment Conditions. Pamphlet Six, Women's Bureau, U. S. Department of Labor. Pp. 43. Available from U. S. Government Printing Office, Washington 25, D. C. $.25.

School Subjects and Jobs. John H. Brochard. **Our World of Work.** Seymour L. Wolfbein and Harold Goldstein. **Finding Part-Time Jobs.** S. Norman Feingold and Harold List. Chicago: Science Research Associates, Inc., 1962. Pp. 48 each. $.50 each. Three new guidance series booklets.

GENERAL

The Planning of Change; Reading in the Applied Behavioral Sciences. Edited by Warren G. Bennis, Kenneth D. Benne, and Robert Chin. New York: Holt, Rinehart and Winston, Inc., 1962. Pp. xiii + 781. $8.50.

The School Librarian; Human Relations Problems. Jack J. Delaney. Hamden, Conn.: The Shoe String Press, Inc., 1962. Pp. x + 183. $4.50.

Evaluating Liberal Adult Education. Harry L. Miller and Christine H. McGuire. Chicago: Center for the Study of Liberal Education for Adults, 1962. Pp. x + 184.

American Catholic Dilemma; An Inquiry into the Intellectual Life. Thomas F. O'Dea. New York: New American Library, 1962. Pp. 144. $.60. A Mentor Omega book.

Free and Inexpensive Learning Materials. (Eleventh Edition.) Nashville, Tenn.: George Peabody College for Teachers, Division of Surveys and Field Services, 1962. Pp. 278. $1.50.

Health Education. (Fifth Edition.) Edited by Bernice R. Moss, Warren H. Southworth and John Lester Reichert. Washington, D.C.: National Education Association, 1961. Pp. xi + 429. $5.00. Designed as a guide for teachers and a text for teacher education.

World History Countdown. A 14' x 2' panel showing, in chronological arrangement, the major events in the history of civilization from 3300 B.C. to 1961. Available from Lifetronics Research, Box 651, Rancho Sante Fe, Calif. $9.95.

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